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ART



THE
ART
OF
EMPLOYING TIME
TO THE
GREATEST ADVANTAGE,
THE TRUE SOURCE OF HAPPINESS.

Doest thou love life—then do not squander Time,
For that is the stuff life is made of.

FRANKLIN.

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P R E F A C E.

THE object of this work is to inculcate a method of deriving the utmost possible advantage from Time, and consequently of living to better purpose than the great majority of mankind, who waste, often wilfully, or from indolence, thoughtlessness, or incapacity, many hours, days, months, and even years, and then, with the strangest inconsistency, complain of the shortness of human life.

As the fruit of his own experience, the author presents this work to the public, and especially to parents and the heads of families; to those who are engaged in the important duty of cultivating and training the youthful mind; and to such young persons as begin to feel the value of time,

and to have it at their disposal. He aspires to no higher reward than he shall find in the conviction that it will prove the means of opening a happier career to some of his fellow-creatures, and of assuring to them a larger portion of virtue, tranquillity, and inward content, than they would otherwise have enjoyed.

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THE ART

OF

EMPLOYING TIME.

INTRODUCTION.

PRINCIPLES once discovered and established, says Bacon, form by their combination the primary philosophy, which is in fact nothing more than a receptacle and collection of the principles common to all the arts and sciences.

Guided by this fertile idea, I have been enabled, as I conceive, to distinguish and to determine a certain number of fundamental truths, or general laws, some of which had been previously discovered and pointed out, though none had yet received that extension of which all of them seem susceptible, and which moreover had never been represented as forming, by their combination, a magnificent whole, a sort of universal code, metaphysical, philosophical, and moral.

These general laws, which are applicable to every thing in nature, form by their union, as it were, a vast reservoir whence flow numberless luminous facts, important consequences, new and valuable observations, productive experiments, and useful applications of every kind.

A modern writer has asserted, that it is not abstract and universal ideas which constitute the power of the mind ; that they are supports of weakness, not evidences of power. To this objection I reply, that these general ideas, being the essence of a great number of facts, and forming a sort of chain which connects them, are the necessary result of the operations and progress of the human mind ; that they are at the same time supports of weakness and evidences and means of power. They are, moreover, imperatively demanded by the very nature of our intellectual faculties. They permit us either to rise to considerations of a higher order, and to soar in thought over the universe ; or to descend to the minutest details ; and by the light of certain established and acknowledged principles, to traverse with confidence the labyrinth of infinitely diversified facts, which it is advantageous to us to observe, for the purpose of comparing the new with the old, by seizing the analogies which con-

nect them, of illustrating the one by the other, and of knowing and improving ourselves.

I readily admit that these general truths, presented separately, and in an unconnected form, are susceptible of being reduced to a smaller number, of being blended together, and perhaps of being concentrated into one universal principle, if we were to take a more general and comprehensive point of view, and to ascend to their common source. But this point of view belongs to those geniuses who have been more highly favoured by nature, who are more deeply imbued with the substance of the sciences, and placed in a more lofty sphere. It was, besides, my intention in adapting my plan to my ability, and treating specifically of TIME, as an instrument to be taken into account in all human combinations, to write more particularly for youth, to whom it would be dangerous to offer too abstract considerations, and who will, like me, more readily comprehend truths of a simpler kind, exhibited in succession, and applied before their faces.

A system of employing time, which this work is designed to explain, pursued with perseverance and benefit for more than seven years, and the salutary habit of collecting daily during that

long period whatever seemed capable of furnishing either materials for erudition and observation, or food for meditation, led to the frequently accidental discovery, and afterwards to the investigation and combination, of these truths or general laws. I shall here confine myself to the exhibition of them in the natural order of their connection and bearings.

For the frequent quotations, which the nature of my subject justifies, or rather demands, it is scarcely necessary to apologize. Expatriating in the different provinces of the sciences, to verify all my general laws by numerous and diversified experiments, I could not help appealing to the authority of men who had made those sciences their particular study. Accordingly I have successively consulted naturalists and physiologists, physicians and metaphysicians, soldiers, moralists, and political writers, and sought in the scattered fragments with which their works supplied me, a warrant for my opinion respecting the general nature of the laws which I lay down.

On this head I feel so confident, that I have no hesitation to invite scholars, philosophers, moralists, and young people of observation, to apply my general principles, either in their actions and their intercourse with other men, or

in their studies and reading, in history, morals, politics, and the sciences. These principles or laws may thus become points of support and useful guides to youth ; and it appears the more suitable to prefix them to this Essay on the *Art of Employing Time*, because on the one hand they have been discovered and verified, as I have just stated, by means of the method here developed, and on the other several of these principles are repeated, quoted, and applied in the course of the work.

FIRST GENERAL LAW.

LAW OF THE POINT OF SUPPORT.

A Point of Support is requisite in every Thing.

"GIVE me a point of support," said Archimedes, "and I will move heaven and earth." This luminous and fertile principle, borrowed from *natural philosophy, mechanics, hydraulics, architecture, anatomy*, particularly in the action of the locomotive organs of the animal machine, and from the physical arts and sciences, is not less applicable, from an exact analogy in expressions, to metaphysics, morals and politics, to *legislation*,

education, rhetoric, logic, the conduct of life, general philosophy, and all the sciences. "In logic, as in trigonometry," observes a French writer, "the first operation must be to lay down a base."

From the *law of the point of support* result the utility and necessity of all the methods which assist and uphold the human mind. Methods are to the sciences what instruments and machines are to the arts, a kind of rules, compasses, levers, telescopes, quadrants, &c. which make amends for human weakness, and furnish it with assistants and auxiliaries. The progress of all the sciences depends much more than may be supposed on the invention and improvement of methods, instruments, and *points of support*, destined to increase their activity. The human mind has need of fixed and unerring rules to facilitate, guide, and rectify all its operations.

This first principle once established leads us in search of others, which themselves become *points of support*, and have general applications, the extent and consequences of which are unlimited.

In *morals* we admit, that in all conditions and in all the actions of life, a man should have a certain firmness of character and will, which is a *point of support* that upholds his conduct. A

weak mind is always vacillating in irresolution and uncertainty: it is tossed by the billows of human opinions, and becomes the sport of extraneous influences, frequently pernicious, inimical, and adverse to one another. It knows not how to keep a *due medium*, falls into extremes, and always fails of attaining its end. *

In morals an enlightened conscience and mind furnish *points of support*, like the methods in *metaphysics*; the levers, ladders, and machines of all kinds, in *mechanics*; the foundations laid by *architecture* to ensure the solidity of an edifice; the general rules fixed by *legislation* for the government of society; the conventions and treaties in *diplomacy* and in commercial and political relations; the arguments in *logic*; and the rules, of every kind, laid down by taste or custom in the arts and sciences.

* "If the mind," observes a philosophic writer, "be neglected in childhood, and we suffer it to pass from wants to passions, without availing ourselves of the interregnum to plant in it certain powerful ideas that shall fix it for life, it will soon be hurried away by the torrent of the world." Religion is therefore, in many respects, a necessary *point of support*, which it behoves education, morality, legislation, and politics, to employ, for the purpose of fixing the opinions and actions of men on more solid bases.

A method of *employing time* is a *point of support* in the conduct of life. *The law of the point of support* deserves to be examined, observed and applied in all parts of the physical, moral, intellectual, social, and political world. Luminous and productive facts of all kinds are the *real points of support*, on which repose *observation* and *meditation*, those two great intellectual powers which alone are capable of advancing the sciences.

SECOND GENERAL LAW.

LAW OF GENERATION OR CAUSES.

There is no Effect without Cause.

THE word *cause*, in its most extensive signification, denotes whatever contributes to the production of a thing. The terms *cause* and *effect* convey to the mind an idea of a certain succession of facts arising out of one another. The principle which connects them together is most frequently unknown. It is useful nevertheless to study this order of succession, that we may know from experience in what manner certain facts are linked together in a chain of mutual dependence, and how some produce those which habitually

and necessarily spring from them, and must be considered as their *causes*, while the others are the results, produce, or *effects* of the former.

It is necessary to enquire into *causes*, in order to obtain *points of support*, and to deduce *effects*.

This law, of general application, is the true *law of generation of the sciences*, or of *creation*, which puts us into a track that leads to discoveries. It ought to be taken for a guide in all the sciences in which the *investigation of causes*, and the accurate observation of the *effects* resulting from them, are the necessary principle of their improvement and progress.

The enquiry into, and the knowledge of, causes, furnish man with the true means of extending his empire over nature.

Felix qui potuit rerum cognoscere causas !

No science can advance without a more precise observation of the facts belonging to it, whence results the facility of ascending to the generating *causes* of those facts, and of producing a repetition of the facts observed, or new phænomena of the same nature.

Science properly directed, therefore, is really and solely a *search after causes tending to some end*. Every science may be defined in a general

way :—a collection of observations of *phenomena and facts*, and comparisons of the identities or differences remarked between them, which tend to lead us to as positive a determination as possible of certain causes and certain effects.*

Agriculture observes the causes which render the earth more fertile, the crops more abundant, the trees more productive. From this observation spring the arts—1, of tilling the ground with different kinds of animals and implements: 2, of dunging and manuring the soil after it has been broken up, and varying the species of the manures and crops: 3, of sowing, planting, engrafting, and pruning trees: 4, of watering plants and gardens, and irrigating meadows and pastures: 5, lastly, all the processes which render the earth more profuse of its favors to man.

Astronomy studies the *causes* of the motions of the stars, of eclipses, and of the tides, and the *causes* of the succession of the seasons; and in this point of view it presides with *meteorology* over the labors of the husbandman. It observes the revolutions of the celestial bodies, their constant or variable progress, the mutual dependence which connects

* Nature," says Bacon, "cannot otherwise be commanded but by obeying her laws."

the one with the other, and the laws of their ascension and direction. A better knowledge of these *causes* dispels the frequently mischievous prejudices which spring from ignorance. The science of astronomy, thus founded on a more correct knowledge of the causes connected with its researches, conducts the navigator and merchant with surer guides into distant and unknown oceans. It promotes manufactures and the exchange of their productions, which causes new productions,* and the intercourse between the inhabitants of the different regions of the globe.

Mechanics and *dynamics* seek the *causes* and the laws either of the solidity of bodies set in equilibrium and in harmony,† or those of motion and its communication, and of the power which attracts bodies to one another. *Architecture*, by the application of these same laws, renders them subservient to the construction and arrangement of our buildings, and descends from the examination of the *causes* which the two other sciences have indicated, to the practice and improvement of the means of erecting for us more solid, convenient, and agreeable habitations.

* See the sixth law, that of *Exchanges*.

† See the seventh law, of *Equilibrium*, or a *due Medium*.

Physics, general and particular, and *chemistry*, which devotes its especial attention to the elementary particles of bodies, study, with different views, the *causes* and principles of the reciprocal action either of bodies in the aggregate or of their particles considered separately,* and lastly those of their different properties, general or individual.

Natural history considers from a single point of view all the natural bodies, and the general result of all their actions in the grand whole of nature. It investigates the *causes* capable of altering their species, and producing varieties in them.

Medicine seeks the *causes* of diseases, for the purpose of preventing them, or that, from a more intimate acquaintance with their nature, it may be able to administer remedies for their removal.

Logic, morality, legislation, politics, and rhetoric, search for the hidden springs that produce in the human heart all the movements and all the impressions of which it is susceptible; that from a thorough knowledge of these moving *causes* of our feelings, passions, and actions, they may operate upon it with the more powerful effect.†

* See the fifth and eighth laws of *Division and Re-union*, and *Action and Re-action*.

† All the secondary or accessory causes which we observe in

In the physical, moral and intellectual, social and political world, and in all the sciences, *causes* duly studied and appreciated are means of advancement and creation, or of the extension of the power of man. Means, says Bacon, being in *practice* what *causes* are in *theory*, so long as we are ignorant of the *causes*, we are destitute of *means*, and can produce no effects.

Our *law of causes*, or of *generation*, is therefore an absolute generality, highly useful in its applications, and prolific in consequences. It is connected with most of the laws which we are about

the world convince us of the necessity of a first and all-powerful cause, which conscience and reason seem to reveal to man by a secret and irresistible testimony. This *first and universal cause*, termed *Providence* or *God*, is manifested in all its works. Into the thinking atom which it has placed on this earth it has infused an emanation of itself, an immortal soul, the existence of which is attested by the boldness of our conceptions, the loftiness of our sentiments, the energy of our passions, and the very insatiability of our desires. All nature, in the magnificent and diversified scenery which she every where exhibits to our view, and in the alternate succession of day and night, of the seasons and of years, confirms to us, by public and solemn evidence, these consolatory truths, which all religions proclaim and too frequently distort. The phenomena of the earth and heavens are demonstrations of God and immortality: a sincere and persevering study of nature necessarily leads to the Author of nature.

to develop, and in the first place with the *law of the point of support*, of which we have already treated : effects accurately observed are but *points of support*, which assist us in ascending to their *causes*, and the causes, discovered and ascertained, become in their turn *points of support* to aid us in producing *effects*. It is connected with the *law of the chain*,* since it exhibits the relations which unite effects to causes, and *vice versa*. It is equally connected with the law of *gradation*, or the *universal scale of beings*,† which determines the natural and necessary progress of the human mind, continually advancing from the known to the unknown. It teaches us to watch all beginnings with attention, that we may discover the principles and elements of things and of the sciences : hence arises a new connection between it and that principle of gradation, which likewise recommends to us the most careful examination of every shade and every degree of the series or progression of a thing, considered from its first origin, that we may not suffer any of the links of the chain to escape our notice, but be able to ascend

* See the third law, the *Law of the Chain*—all things are connected.

† See the fourth law, the *Law of Gradation*.

without interruption from effects to causes, or to descend again from causes to effects. Lastly, it is connected with the law of *ends*,* since it enjoins us in all the sciences to keep in view a specific *end*—the *investigation of the causes* of the effects and phænomena which we observe.

Bacon frequently insists on the utility of the search after and discovery of forms and causes. According to him, the luminous, productive, and truly philosophical facts are such as are calculated to unfold the laws of nature, or *causes*, and to enrich practice by this knowledge. *The power of man consists entirely in his knowledge. Knowledge and power are therefore in reality one and the same thing.*

The art of inventing is, according to Bacon, the art of extracting principles or *causes* from experience or observation, and deducing from these principles new observations and new experiences.

Genius with bold and correct eye embraces *causes* and *results*: it applies the one and creates the other.

A good method of *employing time* is a fertile *cause* of pleasures and advantages, and a medium of happiness.

* See the twelfth law, the *Law of Ends*.

THIRD GENERAL LAW.

LAW OF THE UNIVERSAL CHAIN.

All Things in the World are connected.

WE will first examine the *law of the chain* properly so called, and then the law of *gradation*, which springs out of it, and is perhaps but a subdivision and a consequence of the former.

The study of the *relations existing among all beings* (which may be considered as a kind of universal, physical, metaphysical, philosophical, and moral chemistry), and the observation of the *successive degrees of which the great scale of beings consists*, and of which we shall treat separately, are intimately connected with the *search after causes*, already proposed, according to Bacon, as the real aim of the sciences, and as the creative principle, or the productive and generative medium of discoveries. The art of observation requires strict continuity. It is necessary to observe without the slightest interruption, and to follow every operation without once losing sight of it.

Relations are to be found between all the sciences, and even between things apparently the

most opposite. *All things are connected.** These relations serve as *points of support* for one another, and constitute the materials of *exchanges*, whence result means of creation. The *law of exchanges*, to which we shall come presently (see the sixth law), is not less fertile in consequences than those of the *chain* and of *gradation*, and the two foregoing laws of the *point of support* and of *causes*. Good forms an immense chain, all the links of which are connected; and the same is the case with evil. One truth leads to others: it is a fruitful seed, that springs up and produces more. Errors have, in some respects, the same property of fecundity. It is therefore of the utmost importance to keep our hearts and minds as much as possible within the bounds of the *good* and *true*, for then principles invariably pure produce consequences, opinions, actions, and

* The cultivation of the sense of beauty in literature, and in the arts, extends and improves the human understanding, the enlargement of which cannot be neglected without a kind of mutilation of a principal part of the faculties conferred by nature upon man. In this point of view, numberless facts with which we are acquainted in geometry, astronomy, and other sciences, cannot but be regarded as highly interesting, though we are not aware of their immediate connection with things useful in the concerns of ordinary life.

results, which have the same character. We have then a fixed *base*; we have within ourselves a noble and exalted principle, whence spring effects corresponding with their cause.

Our *law of the universal chain* is more particularly applicable in *education*, or the *art of regulating and employing life*, the three grand divisions, or the *physical, moral, and intellectual* branches of which are closely and necessarily connected. *Health, morals, instruction*, are bound together by secret, indissoluble, and indivisible ties, and cannot be separated with impunity.

The study of the sciences, by enlightening the mind, disposes the heart to virtue : when generally diffused and encouraged, it tends to soften the manners, and contributes to individual happiness, and to the public prosperity. "Those who devote themselves to the peaceful study of nature," observes a philosopher, who confirms his opinion by his example,* "have but little temptation to launch out upon the tempestuous sea of ambition ; they will scarcely be hurried away by the brutal or cruel passions, the ordinary failings of those hot-headed persons who cannot control their

* Cuvier, the celebrated French naturalist. Preface to his *Traité élémentaire de l'Hist. Nat. des Animaux*.

conduct : but, pure as the objects of their researches, they will feel for every thing about them the same kindness which they see nature display towards all her productions."

This close connection between morality and the sciences, judiciously observed by philosophic historians, allows them to compare with greater benefit, for the instruction of princes, heads of societies and nations, the times of barbarism and the periods of civilisation, the progress of knowledge and of virtue, and their reciprocal influence. Aristippus, cast by shipwreck upon an unknown island, perceived geometrical figures traced upon the beach, and congratulated himself that the gods had not thrown him among barbarians. He was aware that ferocity of manners is incompatible with the cultivation of the arts and sciences, which polish mankind.

The same natural and necessary connection of morality with the sciences, and of all the sciences with one another, leads to the beautiful and fertile idea of the unity and community of the sciences: an idea caught and suggested by Bacon, and executed and applied, though yet but imperfectly, in our Encyclopædias.

Politics and *Medicine* have the same object as morals; that is, *preservation*. Medicine is connected in numberless ways with the different

theories of the liberal and mechanical arts, and with the observations of the physical sciences. The latter will no doubt some day remove the veil drawn over the relations between the phases of the moon and the crises of human diseases. The influence of the solar phases, on alterations of health, was long since ascertained and indicated by the father of medicine. There is a corresponding succession of seasons and diseases.

All the sciences form a magnificent empire, between the different provinces of which there must be channels for communication, commerce, exchange, and transport, for their respective productions.

Let us look back at ancient Britain covered with forests: agriculture, commerce, and manufactures, were unknown. Ferocious Druids, amid the gloom of their impenetrable retreats, reigned, by means of terror, over savage tribes. Men were sacrificed to pretended deities; human blood was spilt upon the altars; a sanguinary religion exalted murder into an act of virtue. The people lived in poverty, misery, and guilt. Ignorance, crimes, calamities, and ruin, always go hand in hand.*

* Knowledge and information, great and generous actions, all kinds of prosperity, and *preservation*, the essential aim of

The genius of civilisation appeared. Means of communication were opened, roads constructed, canals dug. Printing, carriages, the steam-engine, the conveyance of letters by post, and numberless improvements in the machinery employed in agriculture, manufactures, and the useful arts, were successively invented.

Navigation opened routes across the seas. The mariner's compass enabled man to explore them in all directions; and when forsaken by earth he found guides in the heavens. The barriers which separated continents were overthrown. Hospitality, agriculture, manufactures, commerce, arts, sciences, and travel, refined the manners. Productions of all kinds were multiplied and exchanged. The banks of the Thames were adorned and enriched by the assemblage of the natives and of the productions of the remotest countries.

the species and the individual, are likewise linked together in an indissoluble chain. But while the arts and letters have polished nations, enlightened the understanding, and refined the manners, governments have not been able to prevent the vices of men from turning part of these salutary remedies into poisons. It is alike the duty and the interest of sovereigns to direct the progress of the arts and sciences to a noble and useful end, and to make them subservient to the prosperity of their subjects.

Some inconveniences, and some abuses, mingled with all human things, in which evil is always found associated with good (which forms another general law; see the ninth law), cannot prevent us from duly appreciating the incontestable benefits and advantages of *civilisation*: it is in fact the natural state of the human species, whose distinguishing characteristic is sociability;* whose noblest privilege, which constitutes its right to the dominion over beasts, is *perfectibility*. But this development of human perfectibility and sociability could not, and cannot still take place, otherwise than slowly and progressively: it must be the work of ages; for every thing in nature involves succession and gradation;† and every being, every revolution, must traverse the links of the chain, or the successive steps of the ladder.

It is the same with sciences as with societies. Several sciences still languish in the state of seclusion, in which individuals and small savage tribes existed in the infancy of nations. They are in some respects separated from one another by vast deserts, or by barriers hitherto insur-

* The more man lives among his kind the more truly he is man. Rousseau himself acknowledged and proclaimed the pre-eminence of the social man to the savage.

† See the fourth law, the *Law of Gradation*.

mountable.* The multitude of books obstructs the different routes. More easy and more numerous communications should be established between them, the exchange of their productions should be encouraged, and they should be enlivened and fecundated by the magic influence of an active commerce and a rapid circulation.

Each cultivator of the arts and sciences ought, without neglecting the peculiar branch which he has chosen, and which he designs more especially to improve, to make excursions into the other provinces of the intellectual world, for the purpose of collecting and carrying back into his particular district or domain such productions as are adapted to it.

All the parts of the civilized world concur in supplying each other's wants. We enrich our native land by collections formed in foreign countries: in like manner, an enlightened philosophy, the true *philosophy of the sciences*, ought to create in their empire, and in its different provinces, the

* Such are, among others, *chemistry* and *politics*, one of which improves the useful arts and manufactures, which it is the duty of the other to stimulate and encourage, as the essential means of prosperity. The wider diffusion of the study of the *mathematics* cannot fail to have a powerful influence on the progress of the *military art*, and on the improvement of artillery.

same prodigies, and the same results of melioration and improvement, as the genius of civilisation has begun to create in the world.

Let us judge from the efforts and success of our ancestors what we are capable of performing, and the success which we may reasonably hope to obtain. Let us equally beware of admiring too warmly and of undervaluing the faculties of the human mind. It is of importance to keep a *due medium* between two opposite errors. The road to wisdom always lies between two rocks, between two contrary excesses: this truth I shall have occasion to repeat in treating of the law of *equilibrium*, or the *due mean* (see the seventh law). This extravagant admiration, and this unjust contempt of the human powers, are prejudices and *obstacles*; it is our duty to convert them into *means of success*.*

A sound and judicious appreciation of all that the human mind has produced, and an admiration of its works confined within due bounds, are motives of encouragement, powerful agents, points of support, levers which raise and uphold us, generous food, which nourishes the consciousness we ought to have of our strength. A prudent distrust

* See the tenth law, the *Law of Obstacles*.

of our powers, if not carried too far, becomes a medium for directing them to better purpose, for applying them with more economy and discernment ; in short, for increasing and rendering them more productive.

This is free-thinking, unconfined to parts,
 To send the soul, on curious travel bent,
 Through all the provinces of human thought;
 To dart her flight through the whole sphere of man ;
 Of this vast universe to make the tour ;
 In each recess of space and time at home ;
 Familiar with their wonders, diving deep,
 And like a prince of boundless interests there,
 Still most ambitious of the most remote ;
 To look on truth unbroken and entire ;
 Truth in the system, the full orb, where truths
 By truths enlighten'd and sustain'd, afford
 An arch-like, strong foundation, to support
 Th' incumbent weight of absolute, complete
 Conviction.*

YOUNG's *Night Thoughts*, Night 7.

* While I have this poet before me, I shall quote another passage from the same work :

Look nature through, 'tis revolution all,
 All change, no death ; all to re-flourish fades ;
 As in a wheel all sinks to re-ascend,
 Emblems of man, who passes, not expires.

FOURTH GENERAL LAW.

THE LAW OF GRADATION.

All is Series and Gradation.

THE *law of gradation* is, in some measure, comprised in the *law of the chain*, and may even be said to be the same law, considered in a different point of view. This general principle, *all is series and gradation*, proves the source of a multitude of important observations and valuable truths.

The acorn requires a long time before it is expanded into the majestic oak, which covers us with its shade. Plants, trees, animals, and all other beings, have but a slow and progressive growth. Each minute, each hour, each day, taken separately, seem to produce no change, no modification in the state of that infant in the cradle, which in a few years will grow up to man-

The world of matter, with its various forms,
All dies into new life. Life born from death
Rolls the vast mass, and shall for ever roll.

Can it be

Matter immortal? And shall spirit die?

YOUNG'S *Night Thoughts*, Night 6.

hood ; and proceeding step by step through the different periods of life, at length arrive at the decrepitude of age. His physical, moral, and intellectual development is slow and imperceptible. In him, as in nature, every thing is progressive ; and progression or gradation is a compound of tints so delicate as scarcely to be distinguished. We may act upon these tints by taking them in detail, by modifying them as fast as they are formed, though we cannot operate upon the whole collectively : but in this manner we make ourselves masters of the whole, the parts of which we have detached, taken separately, and considered one after another. This great truth may be applied with particular advantage by *education*, *morality*, and *politics*.

The *law of gradation*, common to all beings, and every where set before our eyes, warns us to watch with care in all things over their beginning and progress ; to reform without delay in *education*, defects, bad habits, and wrong notions ; evils and abuses, in *legislation*, *administration*, and society ; errors and faulty processes in the *arts* and *sciences* ; prejudices and mistakes in *philosophy*, and in metaphysical, moral, and political discussions ; to extirpate them in their origin ; to attack them one after another, like the

Roman who vanquished the Curiatii; to pluck them up, as it were, hair by hair, like the tail of Sertorius's horse, instead of foolishly attempting to overturn and alter all at once, and in a single moment, what we find established. It was disregard of this truth that produced all the calamities of the French Revolution, in which fiery, impatient, imprudent, and inconsiderate spirits expected to mature institutions in a hot-house.

This *law of gradation* warns us also to hasten slowly, without suffering ourselves to be disheartened, and to imitate the gradual and regular progress of Nature, which expands the faculties and reason of the individual at the same time with his body, and is never in a hurry to accomplish her end.

As we are obliged to admit a certain necessary order of progression, and of continuous concatenation which pervades all things, we ought never to be too hasty and precipitate. We should learn to wait, to prepare, to seize the frequently delicate and imperceptible point of maturity and possibility. This is one of the distinguishing characteristics of genius, which, according to Buffon, is but a superior aptitude to patience. *Festina lente*, hasten slowly, was a maxim of the ancient sages. Patience and perseverance will always triumph in the end.

Principiis obsta, oppose or correct beginnings. The gradation once begun, you will not be equally able to check or to direct its course. It is to the first operations, says Bacon, that we ought to pay particular attention; but this does not relieve us from the necessity of attending to those which follow. If the first operations are good, we obtain a *base* and a *point of support*; we are in the right track; and the gradation or progression, in a direction that is known to be proper and salutary, cannot but be advantageous.

Our general *law of gradation* indicates also the natural and necessary course which the human mind must pursue in order to acquire knowledge. It must keep advancing by a continuous chain, by an ascending ladder, from link to link, from step to step, from the known to the unknown. The known serves it for a *base* and a *point of support*. It is often from the visible that it learns to judge of the invisible. The ladder of the understanding, described by Bacon, is one of the most important points of general philosophy, and of the science of education in particular.

The progressive state is natural to man. He is characterised by a thirst of knowledge. His mind desires to be incessantly extending the sphere of his ideas and of his power over nature. This

restless and insatiable desire, which ferments in the heart of man, seems to be the feeling of his immortality, and to reveal to him his final destination.*

* Man ill at ease

Sighs on for something more when most enjoy'd.
Were man to live coeval with the sun,
The patriarch pupil would be learning still,
Yet dying, leave his lesson half unlearn'd.

Man must soar ;

An obstinate activity within,
An insuppressive spring will toss him up,
In spite of fortune's load.

To love and know in man
Is boundless appetite and boundless power,
And these demonstrate boundless objects too.

Knowledge, love,
As light and heat essential to the sun,
These to the soul.

Look nature through, 'tis near gradation all.
By what minute degrees her scale ascends !
Each middle nature join'd at each extreme,
To that above it join'd, to that beneath,
Parts into parts reciprocally shot,
Abhor divorce. What love of union reigns !

But how preserved
The chain unbroken upward to the realms
Of incorporeal life !

Grant a make
Half mortal, half immortal, earthly part
And part ethereal ; grant the soul of man
Eternal, or in man the series ends.

The general law of *gradation*, like that of the *chain*, which embraces and unites all the sciences, is alike applicable to *natural history*, *cosmography*, *natural philosophy*, *chemistry*, and to all the physical and natural sciences ; to *astronomy*, and the observation of the courses of the celestial bodies ; and to *agriculture*, which studies the progress of the seasons, the gradations and variations of temperature, as well as the successive degrees of the growth and development of plants and of a certain number of animals.

It belongs likewise to *mechanics* and to *hydraulics*, to the *mathematics* and to *geometry*, to the *military art* and to *tactics*, which, to draw up a well-arranged military line, forms with it a kind of ladder, all the parts and all the steps of which mutually support one another, so that each battalion, when attacked, is flanked by the company of the next battalion.

The same law is to be found in all the mechanical arts, and in the fine arts ; in *architecture*, in

Wide yawns the gap ; connection is no more ;
 Check'd reason halts, her next step wants support ;
 Striving to climb, she tumbles from her scheme,
 A scheme analogy pronounced so true,
 Analogy, man's surest guide below.

YOUNG'S *Night Thoughts*.

sculpture, in *painting*, and in *poetry*, which are composed of slight and delicate shades, of varied gradations, that skill and taste ought to be able to combine; in the erection of an edifice, as in the organisation of a society; in the management of a garden or nursery, as in the direction of a state or an army; in plans laid down for study or occupation; in experiments in the arts and sciences; in the *search after causes*, which, if judiciously conducted, must lead to discoveries; in *legislation*, and all the moral and political sciences; in *moral philosophy*, which should operate imperceptibly and *progressively* upon the soul, as *medicine* does upon the body; in *logic* and *rhetoric*, which ought so to govern and combine the progress of argumentation and eloquence, as, from their united effect upon an assembly, to insinuate themselves dexterously into the mind, and penetrate to the heart; in *education* and *instruction*, which guide and gradually develop all the human faculties; lastly, in the *good use of time*, or the manner of regulating the employment of all our moments, with order, economy, and discernment; and in the whole conduct of life, with respect to our own interest, welfare, and happiness, and to our intercourse with other men and with society.

FIFTH GENERAL LAW.

LAW OF DIVISION AND RE-UNION.

*Division and Re-union are two generating Principles,
which must be combined, and act simultaneously,
in order to be productive.*

SINCE *all is gradation*, it is necessary to take the elements of each thing, one by one, and to combine them, if we would form a whole. *In order to create we must know how to divide and re-unite.* This principle is a consequence of the preceding, and connects with our first four laws, of the *point of support*, of *causes*, of the *chain*, and of *gradation*.

It is by combining the double action of first dividing and then re-uniting, of taking singly each of the facts and principles of a science, for the purpose of connecting and arranging them, that we succeed in creating a compact whole, in erecting a solid edifice. Such is the general law which I term the *law of division and re-union*. From this law spring, in philosophy, the two grand methods known by the names of *analysis* and *synthesis*, which have, perhaps, been too much employed separately, instead of being combined. *Synthesis* sets out from particular facts,

for the purpose of ascending to the general fact and principle : *analysis* decomposes the elements of the general fact, in order to descend to the particular facts. "To generalize and to particularize," says a philosopher "are two alternate actions necessary to moral and intellectual life."*

Division and *re-union*, skilfully combined, can alone enable the hand or the mind of man to produce in the end works whose beauty and durability seem to stamp upon them the character of creations of a divine hand or intelligence. Look at the *Iliad*, in which all the individual beauties are so moulded together by the genius of Homer, as to compose a magnificent whole. Look at the master-pieces of the drama, where the *variety* of characters and events developed in them harmonizes with the *unity* of interest and action required in tragedy, as in the epic poem and in all the productions of the arts. Observe, lastly, the continued and regular action of nature in the *details* and in the *totality* of her operations for the preservation of the universe.

He who merely knows how to *divide* loses himself in the details, and has no general views ; whilst he whose sole study is to *re-unite* finds

* See the eighth law, the *Law of Action and Re-action*.

nothing but masses, and is ignorant of the constituent principles of the bodies or things which he ought to employ. *A due mean in all things* is therefore necessary, and this truth accordingly forms the subject of a general law. A judicious combination, a happy mixture of these two actions of dividing and re-uniting, produce the same result as the difference and association of the two sexes, which approach each other, and unite for the purpose of creating. It is impossible to produce a new being in the physical, moral, intellectual, social, and political world, but by the judicious application of the two principles of *division* and *union*. *Discordia concors*: herein consists the germ of life, the soul of the world.

The *division* of labour, of men, of sciences, of social professions, of states or bodies politic, &c. a luminous and productive principle, a law of general application, and their assemblage, their combination, their fusion, the necessary consequence of the exchanges which result from the division, and which become in their turn an active and fertile cause, especially in the organization of societies, and in all that comes within the sphere of *political economy*, are found operating with the same power in all the physical and mathematical sciences. *Mechanics* and *hydraulics* employ suc-

cessively springs and wheels, more or less simple or complicated, to produce an action; and first divide their means for the purpose of afterwards combining them, and making them concur to one common end. *Military tactics*, which Guibert, animated with the warmest enthusiasm for his art, styles the *stupendous and super-human science of working an army*, of giving battle, of forming and directing the plan of a campaign, by turns divides an army into several parts and unites it again into a single body, simplifies its marches, combines the movements of different corps, expands or draws them close together, manages one hundred thousand men as easily as ten thousand, and thus substitutes method for routine, and combinations for chance. *Geometry, physics, optics, mineralogy, chemistry*, which alternately *divides* or decomposes and *re-unites* the elements and particles of bodies; *botany*, which studies the individuals of the great family of vegetables, for the purpose of classing them in species and genera, according to their different individual and common qualities, observed separately and compared with each other; *architecture*, whose different orders depend on particular modes of *dividing* and *re-uniting*; *painting* and *sculpture*, which cannot combine in a single figure the beautiful forms of individual

parts, which it selects from various models, unless by blending them into a homogeneous *whole*; *music*, which produces from a series of modulations a *whole* of exquisite beauty, each modulation which precedes calling forth that which follows, so that their *variety* is thus reduced to *unity*; the mechanical, as well as the fine arts; the moral and political sciences; *legislation* and *jurisprudence*, which take up one by one the faculties and actions of men, to form the general code of their rights and duties; *literature*, *rhetoric*, *poetry*, which combine and vary the different elements of language according to special rules peculiar to each; lastly, *writing*, *arithmetic*, and *printing*, which, by the combination of certain characters, *formed separately and joined together*, embody human thought and its most abstract and sublime conceptions, and communicate to them, in some measure, a physical and material existence more durable than that of man himself: all these arts, all these sciences, cannot obtain results in their respective spheres unless by the judicious application of this law.

The organization and arrangement of a vast administration, a great army, a magnificent edifice, a superb library, a museum, as well calculated for the instruction of artists and the advancement

of the arts, as was the beautiful gallery of Florence, of a fine performance of any kind, a poem, a picture, a concert, or even a ball or an entertainment, consist solely in the two-fold merit of the *details* and of the *whole together*, in *division* and *re-union*, properly combined and properly applied.

These two creating causes require to be employed by skilful hands capable of turning them to advantage.

SIXTH GENERAL LAW.

LAW OF EXCHANGES, OR OF ASSOCIATION AND CONCURRENCE.

Exchanges are a necessary Principle of Creation, and there is nothing but Exchange between Men and all other Beings.

Exchanges result from *division*, the equally general influence of which seemed to entitle it to form the subject of a distinct and separate law. In the social order, as in the moral and intellectual world, and in all the sciences, they are an essential and necessary medium of reproduction.

Concurrence, or the result of exchanges, is a principle of strength. *Natural philosophy, chemistry, botany, agriculture, medicine, morals,*

politics, legislation, and the military art, alike furnish applications of this truth.

The union of small powers, as we have shown in treating of the *law of division and re-union*, becomes the principle of great ones. It is from a judicious combination of individual labours and efforts, directed, though in different spheres, and with infinite modifications, to one general and central *end* (in all the sciences, in *mechanics*, in the *military art*, and in all the useful arts and trades) that we may obtain a mass of powers calculated to extend the dominion of man over nature, or to produce great and useful results.

Let us first consider our law of *exchanges* with reference to commerce, to which it seems to have the most immediate and the most natural application. We may afterwards examine it, and calculate its action and effects in civil society, in military tactics, in the arts and sciences, in the republic of letters, and in the intellectual as well as in the social and political world.

Two persons reciprocally exchange the produce of their labour. Every kind of exchange pre-supposes two things, superabundant production on the one hand, consumption on the other: *superabundant production*, because I can only exchange what I can dispense with, or what is superfluous to me; *consumption*, because I cannot exchange

my surplus except with a person who needs it for his use.

Without the *faculty of exchanging*, each would be labouring solely for the supply of his direct and personal wants, and the most industrious man would not be able to provide for more than an inconsiderable part of his consumption. With the greatest sum of toil and fatigue he would possess but a very small sum of advantages. By means of exchange, whilst he is working for others, all his wants are abundantly supplied by them. His labour is diminished; and his means of existence and comfort are increased.

Thus, then, without *exchanges*, which form the bond of society, there would be neither *division* of labour, nor concurrence of operations to one general end. Now, *division* is an essential and necessary principle of creation and improvement in the sciences, in every branch of industry, and in all human things, as we have observed in treating of the *law of division and re-union*. *Concurrence*, the produce of *exchanges*, and the necessary principle of power, can alone remove one of the great obstacles to the progress of the human mind, that which results from the individual weakness of man.*

* See the tenth law, the *Law of Obstacles*.

In consequence of the *division of labour*, to which nothing but exchanges can give rise, what one man makes, collects, or possesses, frequently bears no proportion, either in kind or in quantity, to his personal wants and consumption. It is by means of exchanges that every consumable thing seeks out the necessity or the luxury which it is destined to satisfy.

The immediate effect, therefore, of *exchanges* is to encourage each individual to make, collect, and acquire, what he does not want for his consumption, and to afford to each the advantage of being able to consume such things as he neither makes nor collects.

Since the condition which renders a commodity exchangeable or marketable is, that this commodity be superfluous to the seller and consumable by the buyer, it follows that, in an *exchange*, instead of giving equal value for equal value, each of the contracting parties really gives a less for a greater value. This truth, which appears to be contrary to the current notions, according to which it is presumed that exchanges are invariably made with equivalent objects, serves to demonstrate more clearly the immense advantages accruing to society from the multiplication of

exchanges, or the extension and activity of commerce.*

Every exchange is profitable to the two contracting parties, since each of them receives what he most needs, and gives what is less useful or less agreeable to him. Every exchange is profitable also to the society in which it takes place, since it is rich only in the wealth of the individuals who compose it, and all exchanges stimulate to *labour*; which is the *universal agent of the creation of wealth*.

It will be asked how commerce can augment the mass of wealth, if it consists only in exchanges, and if the mere exchange of one thing for another seems incapable of producing any thing; or, perhaps, how it can happen that in an exchange, one of the contracting parties, instead of giving equal value for equal value, really gives *less* and receives *more*, while the other also receives *more* and gives *less*; which cannot but establish and prove the influence of exchanges or of commerce on the augmentation of the mass of wealth.

* See Adam Smith's profound work on the *Causes of the Wealth of Nations*; Condillac's excellent treatise on the *Relations between Commerce and Government*; and Turgot's essay on the *Formation and Distribution of Wealth*.

It is of importance here to observe, that the science of political economy considers only exchangeable values, or values of relative utility. It distinguishes three causes of the value of a thing: its *utility*, its *rarity*, and the *labour* requisite for procuring it.

Let us now suppose two men; the one living in a country abounding in muddy water, which he cannot use till it is filtered through sand, of which this tract is totally destitute; the other residing a few miles off in a dry sandy district, in which not a drop of water is to be found. The former sends to the latter some of the water of which he has a superabundance; and the latter supplies him in exchange with sand, of which he has a much greater quantity than he needs. It is clear, that he who has too much water and wants sand gives *less* for *more*; while he who has too much sand and wants water likewise receives *more* and gives *less*.

In like manner, the draper who sells me his cloth for a price agreed upon between us, considers the money which he receives as worth more to him than the cloth of which he has a superabundant quantity: while I, who have money with which I cannot clothe myself, and am in need of cloth, value the cloth which I thus obtain

more highly than the money which I am obliged to give in exchange for it. I give *less* to receive *more*: Were not both of us to reason in this manner with ourselves, he would keep his cloth, I my money, and no exchange would take place between us.

In *exchanges*, a thing passes from hand to hand only inasmuch as it acquires increased value; and as every superfluity becomes wealth, the result is a constantly increasing reproduction, because each person, in creating superfluities, is certain of being able to exchange them for things which he stands in need of.

The more frequent, then, and the more easy exchanges are, the more productions multiply: *commerce* or *exchanges* consequently concur in causing them to be produced: they augment the mass of wealth.

It is wise, therefore, to encourage and favour all the means of exchange and communication among mankind: as high-roads and cross-roads, canals, public conveyances, the transmission of letters by post, bills of exchange, navigation and printing, which, according to the observation of Bacon, perpetuates all discoveries, or carries them to all parts of the globe, communicates the wisdom and knowledge of each nation to all, and

renders the wisdom and knowledge of all the property of each. All obstructions that tend to cramp, retard, or check these communications and means of exchange ought to be removed.

Such is the magic operation of *exchanges* in *commerce*; we shall find it equally powerful in the *social and political organization*. The government ensures to each citizen or subject the advantages resulting from order and harmony—peace, security, property. Each individual contributes to procure in exchange for the chief magistrate wealth, honour, the conveniences and luxuries of life, consideration, authority, fortune, glory. This voluntary ~~exchange~~ between the government and the nation constitutes one of the elements of the social machine.

The different conditions and professions of society are also making continual exchanges from which their reciprocal well-being results. Practical and theoretical men mutually enlighten and assist each other. The husbandman supplies the scholar and the philosopher with the bread which supports their life and strength: the philosopher gives in exchange the result of his studies and meditations. The produce of the labour of the former, placed at the disposal of the latter, enables him to pursue his observations and meditations freely and without molestation; and he

in return furnishes the individual, by whose toil he is fed, with the means of improving his condition, his habitation, his apparel, and his implements of agriculture.

In the military organization, the different kinds of troops, infantry, light horse, heavy horse and artillery, instead of being jealous of each other, or setting up individual claims to superiority, ought to consider themselves as intimately connected, and to lend one another mutual aid by the *exchange* of their respective strength and means, and by their judicious association and combination.

We discover the *law of exchanges* not only in our social institutions, and in the transactions between man and man, in our armies, and in all the arts, but likewise in nature, and between all beings.

The plants, observes a philosophic physician, placed among us to purify the air we breathe, derive in their turn from animal emanations the most essential elements of their growth and vegetation. This reciprocal commerce of influence, this continual interchange of restorative benefits between the two organised kingdoms, is one of the most delightful spectacles to the philosopher, who views nature with an eye worthy of contemplating her operations.

The husbandman commits his seed to the ground

which he cultivates, and which returns it to him with usury.

The atmosphere gives water to the ocean, and pumps it up again in the form of vapours.

The earth supplies us with our food, and we restore to the earth our mortal remains. The wrecks of death become the germs of life.

This *law of exchanges*, observed throughout the globe, a law of absolute generality, and most fertile in its applications, is more particularly connected with morals, with beneficence, and with love, which is the soul of the universe.

Man himself is the result of a real *exchange* between the two beings to whom he owes his existence. All his steps in life and in society are marked by so many exchanges. The first instructions which he receives are repaid by his first caresses. His whole education consists in giving in order to receive, and in receiving that he may one day give—(*Action and re-action*; see the eighth law.) He ought also to be made sensible by daily experience that no person ever does ill to others, but sooner or later, directly or indirectly, evil results from it to himself. The good that is done recoils in like manner on its author. The *law of exchanges*, duly understood and applied, is the principle of general virtue and prac-

tical morality, which embrace all the social relations.* A father of a family cannot with impunity separate his happiness from that of his children, nor a monarch his prosperity from that of his subjects. Whatever interests humanity ought not to be foreign to any man. That egotism which is wrapt up in its own self-sufficiency, and adopting a certain negative, false and anti-social philosophy, insulates and envelops itself in a system of indolence, inactivity and nullity, studies its exclusive advantage, and strives to draw every thing from others without making any return, is but the result of an error, a prejudice, a false calculation, a mistake.

Mistakes, the primary cause of the crimes and miseries which embitter human life, and which spring from a wrong way of viewing things, will furnish, in the examination of one of our general laws, matter for considerations, important in themselves and fertile in consequences.†

* Do not to another what you would not wish to be done to you.

† See the ninth law, the *Law of the Universal Mixture of Good and Evil*.

SEVENTH GENERAL LAW.

LAW OF EQUILIBRIUM, OR OF THE DUE MEAN.

A just Medium should be observed in all Things.

THE operation which takes place in an exchange may be compared with the oscillation of a balance, the two scales of which at length stand still at the point of equilibrium. The consummation of the act which I call *exchange*, which results from the discussion between the seller and the buyer, and terminates that discussion, forms the point of *equilibrium*, or of the *due mean*, which exists in like manner in all human concerns. This general principle, the applications and consequences of which are very numerous and infinitely diversified, is connected in some respects with the law of the *point of support*, and belongs as well to *mechanics* and *hydraulics*, which are always obliged to establish a just *equilibrium* between the powers they employ; to *optics*, to *astronomy*, to *geometry*, to *architecture*, to all the physical and mathematical sciences; to *anatomy* and *physiology*; to *medicine* and to *gymnastics*, which preserve the health of man, merely by keeping his powers and humours in a kind of *equili-*

brium ; to *morality* and to *politics*, which study to balance and reconcile the frequently contrary movements of our passions ; to *political economy*, which works the different wheels of the social organisation in such a manner that they harmonize together, and mutually support each other ; to *legislation* and *jurisprudence*, whose province it is to weigh our duties and our rights in an impartial balance, whence results public morality ; and lastly to *metaphysics* and general philosophy.

In *mineralogy* and *chemistry*, the law of *equilibrium* is observed in the union of various substances, in consequence of their mutual attractions. When all the affinities are satisfied, the combination stops, and there is established a *point of equilibrium*, which determines particular forms and properties.

In *political economy*, it is an acknowledged principle, that productions of all kinds naturally find the level of the wants of the consumers. Such is also the case with the social professions, which proportion themselves to the wants of the inhabitants of a district or town, without needing the interference of the legislature or local authorities for the increase or diminution of their number : there is a constant tendency to an *equilibrium* among them.

In *literature* and in *poetry* it is necessary to guard equally against meanness, bombast, and every kind of exaggeration.

In the *dramatic art* the distances of the times and places to which the action is assigned must not be too widely extended : and the tragic poet ought never to carry the feelings of pity or terror beyond that point at which the heart finds those emotions agreeable.

In *morals*, every virtue, courage, modesty, justice, prudence, nay, even moderation itself, is placed between two extremes. An extreme degree of an agreeable quality borders on the first degree of a quality which is displeasing.

In *philosophy*, we ought, according to Bacon; to preserve a *due medium* between the dogmatism of the peripatetics, which begins where it ought to end (with *certainty*), and the vacillating doctrine of the sceptics, which ends where it would be sufficient to begin (with *doubt*). If we would make any progress in the sciences, we must avoid these two extremes : on the one hand, the frequently imprudent boldness of those who lose themselves among systems ; on the other, the pusillanimous timidity of indolent or grovelling minds, which have no wish to pass the limits of that which immediately surrounds

them. We should also bear in mind the precept of Horace: *Nil admirari*—not to conceive an undue admiration or esteem for any object whatever.

In *military tactics*, and in the disposition of an army on a march, a general should not make his columns too numerous and too weak, which might render their movements too complicated; nor should they be too strong, as they would then be less manageable, and more tardy in their evolutions.

The *law of the due mean* deserves to be attentively considered in every department of the physical, moral and intellectual, social and political world. It manifests itself in the general action of nature, which, according to the expression of a philosopher, balancing the exuberance of reproduction and life by death, keeps the population of the globe within proper limits.

EIGHTH GENERAL LAW.

LAW OF ACTION AND RE-ACTION, OR OF THE
UNIVERSAL ALTERNATE MOTION.

In Nature all is Action and Re-action.

THE perfect state of *equilibrium*, which belongs to the general law that we have just examined, and which may be observed in *natural philosophy*,

mechanics, medicine, morals, and politics, is the constant result of an alternate motion, or a kind of balancing, to which every thing in nature is subject.

All is action and re-action—every thing has, like the sea, its flood and ebb. The application of this general principle is found in all the sciences : in *astronomy*, and in the observation of the laws of the motions of the heavenly bodies ; in *physics*, in *chemistry*, and in individual bodies, or their particles, as in the mechanism of the universe ; in *medicine, anatomy, and physiology*, which consider the *actions and re-actions* of our humours and solids ; in the alternate motions in which the circulation of the blood consists ; and, lastly, in the social and political body, as in the human body ; in the revolutions of empires, in the moral and political sciences, in nature, and in the arts. It is connected with all the other general laws already treated of.

In *mechanics*, the *equilibrium* is the result of a perfect equality of powers, in the *action and re-action* of two bodies, acting one against the other.

The same principle manifests itself in *physiology and medicine*. The different parts of the body enjoy that perfect equilibrium which constitutes the state of health, only inasmuch as the

action and *re-action* between the solids and fluids are then performed with the greatest facility and regularity, and as the parts farthest from the centre of life then possess exactly that degree of energy which suits their destination.

Anatomists consider the osseous system, especially in the skull, as sometimes acting upon the softer parts, at others as being acted upon by them, and in short as alternately influencing and influenced.

In *education* every thing ought to be *alternate* and *progressive*. It is necessary to vary, to alternate, to graduate the habits and exercises of every kind relating to each of the three branches of education, which have a reciprocal *action* and *re-action* upon one another.

In *metaphysics*, every *action* of things upon the senses seems to be invariably followed by a *re-action* of the feeling experienced; and *vice versa*.

In *morals*, the *action* and *re-action* of adverse propensities and passions produce, if nicely balanced, what we term *virtue*, which always preserves the medium between two extremes—*Stat medio virtus*.

In *political bodies* also, the *equilibrium* depends on the *action* and *re-action* of their different parts, which, to form a solid edifice, must mutually

counterpoise and *support* one another. Here the three laws of the *point of support*, *equilibrium*, and *action* and *re-action*, are combined.

The *action* and *re-action* of the particles of different substances occur in all chemical operations and phænomena; and are likewise observable in *astronomy*, in the courses and the reciprocal dependence of the luminous spheres which revolve in the heavens.

All nature exhibits innumerable evidences of universal *action* and *re-action* in her constant and diversified phænomena, and in the endless chain of vicissitudes, and the continual succession of beings.

In consequence of the same general law, applications of which are incessantly presenting themselves, all *causes* become in their turn *effects*, and *effects* on the other hand become *causes*. Thus the *division of labour*, justly considered as the primary and necessary cause of improvement and civilisation, afterwards becomes an effect of that very civilisation, as it is more and more developed: or rather, the improved state of society becomes in its turn a *cause* of the better application of that division of labour, of which it is the *result*. *Exchanges*, or mutual services, which give rise to the social organisation, and which

receive from it a wider extension by the gradual encrease of the means of communication, are in like manner, first a *cause*, and afterwards an *effect* of civilisation. We may therefore lay it down as a principle, that *every thing is both cause and effect*, inasmuch as every thing is *action* and *re-action*; which comes under the law of the chain.

Action and *re-action*, or the alternate passage from facts thoroughly studied, verified, and ascertained, to the reflections and consequences that arise out of them; and from these to new facts, which the two-fold power of well-employed *observation* and *meditation* is capable of bringing forth—such is the course to be pursued in general philosophy and in the sciences, in which we ought, according to the direction of Bacon, to traverse by turns the two parts of the ascending and descending ladder.

NINTH GENERAL LAW.

LAW OF THE UNIVERSAL MIXTURE OF GOOD AND EVIL.

Every Thing here below is made up of Good and Evil.

THIS principle, of general application and prolific in consequences, is connected with the *law* of

action and re-action, and springs more particularly from the *law of the chain*, expressed in these words : *All things are connected together.*

There are two ways, perhaps equally right, of viewing all human things. They are made up of contrasts. To begin with man himself—what a contrast of wealth and poverty, of meanness and grandeur ! *

A medal, the obverse of which exhibits a scene or object that charms the imagination, while the reverse displays a hideous spectacle which excites terror, or some unpleasant sensation, is a faithful emblem of human things, all of which, like man himself, have two totally different points of view,

-
- * How poor, how rich, how abject, how august,
 How complicate, how wonderful is man !
 How passing wonder He who made him such,
 Who centred in our make such strange extremes !
 From different natures marvellously mix'd,
 Connexion exquisite of distant worlds !
 Distinguish'd link in being's endless chain,
 Midway from nothing to the Deity !
 A beam ethereal, sullied, and absorpt,
 Though sullied and dishonour'd, still divine :
 Dim miniature of greatness absolute,
 An heir of glory, a frail child of dust,
 Helpless immortal, insect infinite,
 A worm—a God !

YOUNG'S *Night Thoughts.*

tical morality, which embrace all the social relations.* A father of a family cannot with impunity separate his happiness from that of his children, nor a monarch his prosperity from that of his subjects. Whatever interests humanity ought not to be foreign to any man. That egotism which is wrapt up in its own self-sufficiency, and adopting a certain negative, false and anti-social philosophy, insulates and envelops itself in a system of indolence, inactivity and nullity, studies its exclusive advantage, and strives to draw every thing from others without making any return, is but the result of an error, a prejudice, a false calculation, a mistake.

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suits of political dissensions. Wherever I see a great effusion of blood, observes Bacon, I am certain that a false end or false measures have been pursued.

The ill that men do to themselves always arises from mistake. They cannot injure one another without deceiving and betraying themselves. This consolatory truth furnishes a *point of support* to morals, one of the fundamental precepts of which is: *Do to others as you would wish them to do to you.*

Vices, prejudices, errors, ignorance, crimes, wars, are properly speaking but *mistakes*. The same may be said of violent passions, which make individuals unhappy, and disturb^d and ravage society; they are always affections wrongly directed. Vice bespeaks a narrow soul, an unenlightened mind. To no purpose would you instance men of great genius who have been vicious and criminal: I reply with confidence that the malevolent passions to which they addicted themselves stifled part of their natural talents, and that the very abuse of their faculties was the result of the two-fold error of their understandings and their hearts, contracted and corrupted by their reciprocal action and re-action.

One mistakes the nature of glory, and loses his

way. Erostratus, blinded by a senseless desire of celebrity, thought to immortalize himself by burning the temple of Ephesus. A second is mistaken respecting happiness and true philosophy; he makes himself and those about him miserable. A third, not having proper notions of economy, squanders his fortune and that of his family. A fourth, hurried away by jealousy, and harbouring unjust suspicions, poisons with his own hand the conjugal chalice: he has not properly comprehended the delicate and important point of domestic union. Each of these has viewed the thing which interests and engages him merely in profile, and not in full face. He has taken from it all that was dangerous, but not extracted whatever it contained of good and useful, for the purpose of turning it to his advantage.

If we will be honest with ourselves, we shall be obliged to admit, upon a review of our lives, that we have never been very miserable but through our own fault, and that our complaints and reproaches respecting our situation ought more frequently to be addressed to ourselves than to the Deity, to nature, or to fortune.

O youth, about to launch into the world, and to take in hand the guidance of thy destiny, let me entreat thee to meditate seriously on this im-

portant truth ! Look at those who are overwhelmed with distress of every kind ; seek the cause, the origin of their sorrows, and thou wilt discover that almost invariably they were themselves the authors of them. Thou wilt thus learn to avoid most of the evils by which the rest of mankind are tormented.

The consideration of *mistakes* warns us to judge by the reality, not the appearance of things, to penetrate into the interior of them, if I may be allowed the expression, and not to stop at the bark and the outside.

How many men, thrown amid the tempests of revolutions into adverse parties and under hostile banners, have been ready to cut one another's throats, who had in reality one and the same object, but misconceived each other's views ; who were equally solicitous for the prosperity of their country, but imagined that they discovered it, some of them in a particular form of government, the advantages of which they considered exclusively ; others in a different form : these in the selection or elevation ; those in the disgrace and fall of such and such persons.

Their hearts really harmonized and tended by means of a secret instinct to one common end, the *public interest*, which is composed of the union

of all the private interests, well understood and duly calculated : but their understandings, not being rightly directed, were lost in a labyrinth of false and crude opinions, which were destitute of *points of support*, which did not spring out of one another, which were not connected together by a continuous *chain*, and were not pointed to a particular *end*. These baneful misconceptions soon gave birth to ferocious passions ; and, for want of a mutual understanding, they devoted each other to proscription and death.

In revolutions, in factions, in societies, there is always a mixture of the good and the bad ; and it is generally in consequence of strange *mistakes* that they are associated together. We ought never to generalize, but to respect varieties and shades in opinions, to examine with care such as we purpose to adopt ; not merely to look at a thing in profile, or only on one side, but first on one side, then on another, then in front, and by turns in every point of view. In this manner we qualify ourselves to form sound opinions, to appreciate *causes*, to calculate *effects*, and to perceive and seize all the intermediate and successive links of the *chain* which unites them.

The constant observation and due consideration of *mistakes* necessarily leads a man to the senti-

ments of toleration and indulgence, with which an elevated mind, that soars above the thick and contagious atmosphere of vulgar opinions, inspires a generous heart. Prudence, or the art of governing ourselves, and of judging with discernment and impartiality of men and things, likewise results from the application of this truth.

Men in general are not naturally wicked;* but they are anxious to promote their personal interest, and sometimes pursue it to the injury of others. It is the effect of a real *mistake*, which education, morality, and legislation, ought in the first instance to prevent, but which afterwards it is right to repress and punish, if it leads to pernicious and criminal actions.

"Virtue," says Young, "is true self-interest pursued"—"'tis virtue to pursue our good supreme." Nothing, therefore, but *mistakes* can cause us to deviate from the path of virtue and happiness.

* There certainly are exceptions. Some persons are born with really wicked or vicious dispositions. The difference of innate characters is equally incontestable with that of constitutions and understandings. It is necessary to observe a due medium between the system of Helvetius, which attributes every thing to education, and that of Dr. Gall, which is censured for allowing it too little influence.

“And what is vice?” exclaims the same philosophic poet—“Self-love in a *mistake*.” In another place he describes it as “mere want of compass in our thought.”

Vir malus puer robustus—the bad man is a headstrong child.* The man who has the strength requisite for doing evil, without possessing sufficient intelligence to perceive that the evil which he does must necessarily recoil upon himself, is for this very reason a child, the real sport, dupe, and victim of a *mistake*, the result of ignorance and error.

Morals, the social relations, habits, studies, the arts and sciences, the physical, moral, intellectual, social, and political world, furnish then alike useful and numerous applications of the law of the *universal mixture of good and evil*, and of the particular consideration of *mistakes*, which is one of the keys to the human mind; a beacon to enlighten and keep it on its guard, amid the tempestuous ocean of errors, prejudices, and passions; a compass and a guide; a *point of support*, and a medium of direction in study and in the conduct of life.

Mistakes are prejudices, or false and hasty opinions, errors of which the human mind rids itself

* Hobbes.

much more easily than may be imagined, if it seeks truth with sincerity, with an upright heart and pure intentions, which enlighten and rectify the judgment. The grand and fertile idea, that *all crimes are real mistakes*, mistakes of the mind, which mislead and corrupt the heart, is a moral and philosophic basis, in common life and in society, in legislation, in politics, and in the sciences, and tends to dispose men continually to the search after and love of truth, and to the practice of virtue.

TENTH GENERAL LAW.

LAW OF OBSTACLES.

All Inconveniences and Obstacles may be converted into Elements and Means of Success.

THE law of *obstacles converted into means of success* springs, like the particular consideration of *mistakes*, from the law of the *universal mixture of good and evil*. Since *every thing is compounded of good and evil*, we ought, whenever we meet with a difficulty or an obstacle, to study how to overcome it, for the purpose of converting it into a medium of success. This is one of the

great secrets of wisdom, and a distinguishing characteristic of genius.

This law is not less general than the others; nor less fertile in consequences and results. It belongs alike to the physical sciences, to *natural history*, *natural philosophy*, *mechanics*, *chemistry*, *agriculture*, and *medicine*, and to the metaphysical, moral, and political sciences; to *education*, *legislation*, *rhetoric*, *diplomacy*, *the conduct of life*, or the *art of employing time, things, and men*; to *politics*, or the art of governing and rendering states flourishing and mankind happy, and lastly to *tactics* and the *military art*.

Nature herself pursues a similar course: she grasps with mighty hand all the *obstacles* that seem to throw themselves in her way, and transforms them into so many germs of creation: she employs the wrecks of death for the reproduction of life. The law of obstacles is susceptible of numerous applications in the different branches of natural history.

In *mechanics*, whatever resists an impelling power is termed an *obstacle*. The impulse received by the obstacle removes it from one place to another, and concurs in the effect which art is desirous of producing.

In *agriculture* we consume with fire the bushes

and briars that cover an uncultivated and barren soil, which their ashes enrich and fertilize. Primary matters, which are useless or pernicious, are converted into a different substance that is nourishing and productive. It is to the inundations of the Nile that its favoured banks owe their astonishing fertility. A *cause of ruin* is transformed, through the bounty of nature, into a *medium of reproduction*.

Chemistry and mineralogy teach medicine to convert active poisons into remedies and means of preservation.*

In morals, the passions, too frequently the parents of vices, become, by means of a due direction, and by the practical application of a wise philosophy, wholesome excitements, and produce acts of heroism and virtue.

Think not our passions from corruption sprung,
Though to corruption now they lend their wings.
All reason justly deems divine. I see,
I feel a grandeur in the passions too,
Which speaks their high descent and glorious end,
Which speaks them rays of an eternal fire.

YOUNG'S *Night Thoughts*.

* These poisons, in order to become salutary remedies, must be combined in due *proportions* into certain doses according to the *law of equilibrium*, or the *due mean*.

According to the purposes for which they are employed, the passions are either obstacles to happiness or means of embellishing life.

The thought of death, which is often so great a drawback on our pleasures, ought to teach us to live well, and to direct our actions to a good and useful purpose. If man is wise, he should find his remedy in the very cause of his calamities.*

A wise *policy*, maintaining a constant control

* The mortifications, the persecutions, the afflictions of every kind, which more and more beset us, during our brief residence on earth, and which frequently crush with their weight those who are endowed with the noblest and purest souls and the rarest virtues, furnish a powerful motive for admitting, with a thorough conviction, the cheering doctrine of a *future life* and the *immortality of the soul*. The sense of the love of order, the principle of which is implanted in our hearts, and which seems to be born with us, causes us to feel the want of a better world, where virtue shall be compensated and rewarded for the privations and sacrifices which are imposed upon it in this. Thus our *law of obstacles converted into means of success* teaches us, even while smarting under afflictions, to derive from morality and religion the hope of some time seeing the end of them, and obtaining a due compensation. This future compensation, which a secret instinct, a happy disposition of the mind of man, common to almost all the individuals of his species, and which seems to be inherent in his nature, enable us to discover beyond the grave, ought in some measure to absolve Providence, whose justice, the transient triumph of the wicked and the too often unhappy destiny of the good would otherwise seem to arraign.

over *obstacles*, makes adverse parties and factions concur in its designs.

In the *military art*, as in morals and *politics*, an able general seizes *obstacles* for the purpose of turning them to his advantage. The *inconveniencies* resulting from his position, the country in which he happens to be, the time, the season, or the spirit of his army, are converted by him into the *means* of victory.

In *legislation*, and in the general progress of empires and nations, the multiplication and extension of social relations, and the advancement of civilization, are accompanied with abuses, which the skilful legislator turns to advantage. He ought to seize the evil in order to convert it into good. Instead of constantly demolishing and delighting in ruins, he ought, by a magic influence, to fecundate and vivify whatever he touches. As we see an architect avail himself of all the materials capable of rendering service, and applying the wreck of ancient buildings to the embellishment of a new edifice, so, by the skill of a wise and judicious legislator, the most baneful customs and prejudices are re-moulded, as it were, adapted to the institutions which he is desirous of establishing, and at length receive (agreeably to the application of the *law of gradation*) insensible

modifications which alter their form and effects without destroying them.

Political economy, which recognises in *luxury*, when ill-directed and carried to excess, a *source of calamity* and a *cause of ruin* to states, points out the means of giving to it a useful direction, and of converting it, when restrained within due bounds, into a *principle of increase*, both of population and prosperity.

In the *sciences*, *obstacles* may in like manner be skilfully turned to advantage. Errors, duly observed, contribute to the triumph of truth. The most dangerous evils in physics, physiology, medicine, morals, and politics, frequently carry with them the remedies adapted to their cure.

In the career of discovery, many consider as impossible whatever has not yet been executed. "No man ever attempted such a thing," says a pusillanimous mind. This observation, which is an insurmountable *obstacle* to the timid and the shallow, is an encouragement and a pledge of success to the man of superior genius, patience, and courage. This superior genius also finds in his very modesty, and in a certain distrust of his powers, which is not incompatible with the consciousness he ought to have of them, the

principle of the continual increase of those powers.*

“As nature,” observes a French metaphysician, “presents to us nothing but units, or rather individuals, and our ideas themselves are successive, how should man have attained the conception of numbers, had he not experienced the plague of confusion, that is, the necessity of introducing order within and without him, of making himself master of the multitude of bodies, of their duration and all their movements; in a word, of counting? The *science of calculation*, like all the other sciences, sprung from the very *obstacles* which the genius of man has encountered, and which his perseverance has overcome. The most ingenious inventions are owing, in some respects, as much to the weakness as to the strength of the human mind.”†

* In the sciences, and in all pursuits, *obstacles*, universally susceptible of being converted into *means of success*, become springs, levers, and powerful engines, to stimulate and uphold courage, industry, and perseverance.

† This assertion, that inventions are owing to the natural weakness of the human mind, to the inadequacy of its resources, and the necessity of making up for it, is not, perhaps, quite correct. A man cannot carry above three hundred pounds weight. He invents a lever, which enables him to move three

"If we have ships," continues the same writer, "it is because we should be unable to walk upon the sea; if we count, because units, or individuals, escape us; if we have clocks, the reason is, that we could not master time by thought; if we construct so many instruments and machines, it is to make up for our own weakness and insufficiency. Thus the arts, the sciences, and all our inventions, are but resources, which, the more ingenious they are, the more strongly they prove our embarrassment. In man, strength has truly sprung from weakness, and light from darkness. We are born limited; but our limits are moveable; while those of the irrational animals are almost immoveable."

All the obstacles to the progress of the sciences, and of the human mind, ought therefore to be studied and meditated upon: they will then furnish resources for the advancement of the sciences.

War is an *obstacle* to the advancement of the arts and sciences: but the processes of military

thousand. Man feels his weakness and creates; but weakness itself does not create. The most ingenious inventions then are due to our intelligence, stimulated by our *wants*. These wants may be considered as *obstacles*, which our nature excites us to surmount, and which give birth to the various productions of the arts.

tactics, ingeniously modified, and applied in the intellectual world, may be the means of achieving discoveries and conquests in it.

Military habits and manners, which tend in various ways to deprave the morals of mankind, give, at the same time, more energy to the sentiments of elevation and courage, and fortify and ennoble the soul, by rendering it superior to the fear of death itself.

The skill of the mariner is most conspicuous in the tempest, bravery in danger, and virtue in adversity.

Let us take a rapid survey of the different classes of society, of the diversified scenes of life.

Voyages and travels, which do not admit of the prosecution of regular study, seem to be an *obstacle* to the cultivation of the mind; ~~but~~ to the man who knows how to benefit by them they prove a fertile source of information: they furnish him with numberless observations, and with subjects for useful and profitable meditation.

The most disagreeable employments, and the most ignorant persons, may be turned to good account by the man whose mind is accustomed to study how to convert all *obstacles* into *means* of

success. Our very enemies are useful: they impel talent to new efforts, and excite it to surpass itself.*

There is no man, however limited his capacity, no situation, how unfavourable soever it may appear, but something or other may be gained from them. Your time is occupied, and your mind engaged with disagreeable details; but the numerous accessaries with which your duties bring you in contact may promote your favourite pursuits, as well as concur in those to which you are obliged to attend. In this manner they indemnify you for the loss which you sustain, and return frequently with usury that portion of time which your situation compels you reluctantly to sacrifice. In this they themselves necessarily find their advantage, as we shall be convinced on applying the general law of *exchanges* or *mutual services*, the basis and *point of support* of the intercourse between man and man.

A party of pleasure, an entertainment, or a meeting, to which you are summoned by social duties, robs your mind of valuable moments, in which it would have enjoyed itself, and created

* See Plutarch's Treatise on the utility of enemies and the art of deriving advantage from them.

noble and generous conceptions. You derive, however, from animated conversation, skilfully directed to the objects which interest you, the means of making yourself more completely master of your thoughts, of expressing them with greater force, energy, and clearness, by striking them, like flints, which only give out sparks by collision, against the thoughts of others. A circumstance, therefore, which seemed likely to be an *obstacle* to your plans of study and meditation serves, on the contrary, to promote them.

In all three points of view then, physical, moral, and intellectual, as well as in regard to the *employment of time*, which is the real science of *happiness and virtue*, *obstacles* may be converted into means of power and elements of success. In every pursuit, surmounted obstacles strongly attest the energy of *human genius*.

ELEVENTH GENERAL LAW.

LAW OF PROPORTIONS OR HARMONIES.

All Things are relative.

THIS general principle, which I shall term the law of *proportions* or *adaptations*, enables him

who understands the art of applying it to discover more readily, and to seize the relations of utility that may be presented by persons and things, the shades of the human heart, and the fugitive occasions, that must be caught, as it were, flying, if we would derive advantage from them. This law is essentially connected with all the others, and especially with the two preceding :

1. With the *law of obstacles converted into elements of success*, because it is always *relatively* to things and circumstances that evil may be modified into good ;

2. With the *law of the universal mixture of good and evil*, because most human things may be reputed good or bad relatively to some other thing or circumstance, and according to the point of view in which they are considered ;

3. With the particular consideration of *mistakes*, since *mistakes* arise solely from our not knowing how to appreciate properly the mutual relation of things, and to examine them comparatively with others : for most men form opinions only with reference to their individual situation and passions, and preposterously separate their private interest from the public interest.* Here

* The observation of mistakes and their causes ought to instil, into young people in particular, great reserve and circumspec-

again occurs an application of the *law of the chain* (*all things are connected*), or of the study of the relations which subsist between all created beings. The selfish man, regardless of this great law of nature, imagines that he may with impunity insulate himself, and break one of the links of the chain.

All things are relative. This law of *adaptations* or *proportions* is susceptible of general application in nature and society ; in the physical and mathematical sciences ; in the metaphysical, moral, and political sciences ; in all the arts and in general philosophy.

In *physics* we cannot ascertain the *absolute* power of gravity, but merely the *relative* force to the obstacles which it can or cannot overcome, and the law of the acceleration produced by this force according to the time occupied by the descent of the heavy body.

In *chemistry*, the success of the manipulations and operations, tending to bring together or to separate the particles of bodies, and to combine

tion in forming their own judgment, and great toleration and indulgence for the opinions and judgment of others, which are in general *relative* to the situation and interests, real or apparent, of the persons disposed to adopt them.

them in a thousand different ways, depends entirely on the exact observance of the proportions in which those particles are made to concur in the combination which we intend to produce.

In *natural history* we cannot obtain an accurate knowledge of the different beings, the study of which that science embraces, but by means of *comparative anatomy*, which shews their identities or their analogies, and appreciates their different *proportions*. Each species has its peculiar organisation and manners, habits and wants, springing from, or harmonizing with, that organisation.

The three great branches of natural history, *mineralogy*, *botany*, and *zoology*, cannot be improved, nor can their respective spheres be enlarged, but by judicious application of the study of the *proportions* between the different beings.

Astronomy directs the human eye to the immeasurable etherial vault, that it may there observe the *proportions* between the masses and the motions of the celestial bodies, and thence deduce the laws of their continuous and regular courses.

Geology penetrates into the interior of our globe, into the abysses of the earth, and every part of its surface, to examine the different strata of which the soil is composed, to observe the formation of the substances concealed in its bosom, the pro-

portions and *conformities* between the *directions*, *elevations*, *inclinations*, and *depressions*; of *mountains*, *plains*, and *valleys*, and thus to detect the hidden processes of nature in the material organisation of the universe.

Mathematics, *geometry*, and *mechanics*, are the sciences more immediately dependent on proportions.

In *physiology* and *anatomy*, the same relations and the same concordance between the complicated works of the animal machine and of the human body prove to the observer, that nature, adhering invariably to her laws, applies them to a single individual as well as to the whole of her creatures and to the courses of worlds.

Anatomy, if cultivated to the extent of which it is susceptible, would convey so intimate a knowledge of the relations between the parts, and the different results of the changes to which they are subject in their respective situations, that, on seeing the state of the one, we should be able to judge of the state of the others; as in geometry, when we know one side and two angles of a triangle, we necessarily know the other two sides.

Philosophic physiology, which compares the varieties of the human species, observes, that in consequence of the principle of *correspondence*

which the parts of the human body ought to possess in order to appear beautiful, each race of men living in society places beauty in a certain perfection of the characteristic features common to the individuals of that race. A man may be thought handsome in China with very different forms and proportions from those which are required to constitute a handsome person in Europe.

The variation of temperature and climate, and the difference of the nature and quality of soils, according to which we ought to modify our operations and processes, with an exact *proportion* ascertained by observation, furnish fresh occasion for applying our principle in *meteorology, agriculture, and medicine*.

Medicine ought always to seek with sagacity a regimen and remedies *relative* and *analogous* to the constitution of the patient, the climate, the season, the state of the atmosphere, and the nature of the disease.

A philosophic physician, examining the difference of the sexes with regard to *anatomy* and *physiology*, asserts, that it does not merely depend on certain superficial variations, but is the result of perhaps as many proportional differences as there are organs in the human body, though they are not all equally perceptible. The delicate and

tender constitution of females always retains something of the temperament peculiar to children.

This same difference of the sexes, studied in a *moral* point of view, indicates the essential shades and modifications by which they are distinguished. What is becoming in a woman would often be the reverse in a man. The *duties* are *relative*, as well as the *virtues*, according to the destination of each sex.

The different ages have, in like manner, different, and sometimes contrary propensities, tastes, and pleasures, but yet always *relative* and *appropriate* to each of the periods of life. *Rest* is a want, a kind of right and privilege of *age*; *activity* is the portion of *youth*, possessing a superabundance of life, which nature calls forth into exercise. A young man must not require of an old one the performance of the same duties which he thinks it necessary to impose upon himself; nor would it be more rational in an old man to attempt to restrict a young man to that state of absolute tranquillity, stagnation, and inactivity, which he may find so agreeable.

The social *conditions* and *professions* have, like the sexes and ages, characteristic differences belonging more especially to each of them. That which may befit a schoolboy, or be authorised by

military manners and a life spent in camps, would in general be highly unbecoming in the drawing-room, and among polished society.

Our inclinations, ideas, opinions, prejudices, occupations, duties, habits, manners, pleasures and pains, differ according to our respective situations, and depend on the nature of the sphere in which each is placed. The philosophic observer, the moralist, the dramatic writer, and the novelist, ought to study, and to seize with sagacity these shades and proportions, in order to obtain a thorough knowledge of the human heart, and to pourtray it with fidelity.

In regard to the virtues, the first that morality enjoins are those which are more especially suited to every possible situation.

Good and evil, in morals and legislation, are almost always relative, either to the laws and customs of a state, or to the particular situation of an individual. There are, nevertheless, acts, which, condemned alike by the voice of conscience and by all laws, divine and human, natural and social, are at all times, and in all places, reprehensible actions, or crimes. But these very actions, these crimes, are susceptible of infinite modifications, by which they are aggravated or extenuated, and which are communicated to them by

attendant circumstances. The same sentence and the same penalty ought not to attach to the cowardly and ferocious murderer, who has long watched for an opportunity to slaughter his victim, and the passionate man, who, in the ebullition of rage or revenge, inflicts a mortal blow on one who has provoked him by a glaring outrage or a wanton insult. It is in seizing the delicate shades which accompany an action, and render it more or less excusable or criminal, that the sagacity of the lawyer and the magistrate ought to be evinced.

Wants, like *duties*, and like the *morality of actions*, are also *relative* to the *circumstances* which produce them, and to the general state of civilisation, institutions, and manners, and in particular to the personal situation of each of the members of society.*

The *expenses* of a person ought to be *propor-*

* A carriage may be a mere article of luxury with the wealthy idler, but an object of the first necessity to a man of business, who is obliged to be frugal of his time. Unless we make due allowance for these shades, which modify *conditions*, *wants*, and *duties*, we fall into gross errors, resulting from real mistakes; and we unjustly charge one man with not knowing how to limit his desires so well as another, whom we preposterously hold forth to him as a pattern.

tionate to his income. The judicious application of our general law to the management of a family, or the government of a state, produces a spirit of order and economy requisite in all conditions. The steady observance of a due *proportion* between the receipts, or income, and the expenditure, is essentially requisite to happiness, and belongs alike to the art of conducting ourselves with propriety in the world, and to the art of government.

The talent of selecting with discernment our friends, our acquaintance, all those with whom we would associate our affections, our studies, our business, and, above all, the partners of our lives, the choice of whom is so essential to happiness, depends also on the strict observance of our law of *relations* or *sympathies*. Hence likewise springs *politeness*, which lends an additional charm to every virtue, that delicate sense of social decencies, which is composed of an infinity of shades difficult to be seized, and all *relative* to age, sex, rank, persons, customs, places, and manners.*

* The same law applies to the appreciation of the different circumstances which it behoves us to study and consult in *morality*, *politics*, and the sciences, that we may direct and modify our observations, actions, and conduct, according to their differences. We ought to watch for, to appreciate, and to seize the exact moment and point of possibility. This subject falls, in some respects, under the three laws, of the *point of support*, *gradation*, and the *due mean*.

Legislation and politics, like *education and morality*, ought carefully to adapt their precepts and their laws to the *characters and passions* of those whom they are called to govern. What is proper in Turkey may be quite unsuitable in England, and *vice versa*. Civilised nations require to be ruled in a very different manner from such as are yet rude, ignorant, and barbarous.

Literature demands the same strict and precise observance of *fitness and proportions*. A tragic action, says Horace, must not be related in comic and familiar verse: the language of the pulpit is an idiom foreign to the bar: the ease of the epistolary style would not suit the dignity of history: the pastoral pipe is adapted to the eclogue, and the martial trumpet to the heroic poem. Each department of literature, oratory, and poetry, has its peculiar tone and style.

Independently of the general rules which constitute the beautiful in literature and the arts, each country has its national taste and its appropriate beauties.

Some writers assert, that in the grandeur and beauty of intellectual objects, as in those of sensible objects, there is nothing absolute, but that they are merely *relative* qualities to the faculties of our minds. Beauty, they tell us, does not exist of itself in the objects which we think beau-

tiful; it is but a *relation* which they have with us, like cold and colour, which have no existence but in our perception of them.

In *architecture, sculpture, painting, poetry, oratory*, in all the fine arts, as in the mechanical arts and trades, our law of *harmonies*, the necessary source of a delicate and exquisite tact, which men have concurred to call *taste*,* and the principle of genuine beauty of every kind, determines the *proportions*, the *relations*, the shades, of the different parts of a building, the sentences of an oration, and the colours and details of a picture.

“The administration of a great state,” observes Fenelon, “requires a certain harmony, like music, and just proportions, like architecture.”

The *art of employing time*, as well as *education*, and the different means which it employs, ought to be modified in practice, with reference to age, sex, condition, fortune, destination, or station in

* Taste, according to the definition given of it by the author of an elementary work on rhetoric, is the feeling of what is fit and suitable. The man of taste, in literature, writes nothing that can offend the ear; in the arts, produces nothing that can hurt the eye; in society, always employs the tone and language suited to the place where, and the persons with whom, he is. A person possesses taste when he is apprised by a quick and lively sensation, agreeable or disagreeable, of what is beautiful or ugly, good, middling, or bad, in what he sees, reads, or hears.

society, the general circumstances of the country, the nature of the government and of the climate, and the differences and varieties of constitutions, passions, and dispositions.

The *art of questioning*, which is a branch of the *science of employing time*, or the manner of interrogating with benefit such persons as we meet with in society, and of availing ourselves, for our personal instruction, of the experience and knowledge peculiar to each, consists in the talent and habit of discovering what interests or is *relative* to them, and adapting our questions and conversation to the subjects with which they are familiar.*

In short, the proportions or harmony between the means and the end, causes and effects, efforts and results, faculties and desires,† income and

* See the two chapters of the following Essay, on the *Art of questioning*, and the *Art of employing Men*.

† Objects, powers, appetites, heaven suits in all,
Nor, nature through, e'er violates this sweet,
Eternal concord on her tuneful string.

Now virtue, it is universally admitted, does not receive upon earth a recompence adequate to its afflictions and its combats. We must therefore assume, that there is reserved for it a reward proportionate to the pains it suffers, and the sacrifices it enjoins. Thus the application of our law of proportions, like our preceding laws, leads to the sublime and cheering idea of the immortality of the soul.

expenditure, men and their different employments, the characters of nations and the laws that are given to them, seem to furnish a universal rule in morality, legislation, politics, and philosophy, as well as in architecture, mechanics, mathematics, music, literature, and all the arts and sciences.

TWELFTH GENERAL LAW.

LAW OF AIMS.

In all Things there must be an Aim, End, or Object.

THE word *aim* properly signifies a *point which we strive to hit with something*. In the figurative and more general signification, it is a *foreseen and desired effect which we seek to produce by certain actions*. None, therefore, can have an *aim* but an intelligent being, who has at least a confused notion of an effect, who foresees, who wishes it, who acts spontaneously to obtain it, and who accordingly acts in the manner that he thinks most likely to produce it. An *aim* always presupposes an intelligence and a will, and cannot exist without them. It is the idea of the *foreseen effect*, and the intention of the agent,

that determine the reality and extent of the *aim* which he proposes to himself. The characteristic distinction of intelligent beings is to have an *aim* in all their voluntary actions; and this *aim* is always an *effect* which they consider as necessary to their improvement and felicity.

The particular *aim* of the individual is *happiness* or *well-being*—a result of the development or improvement of his faculties. The general aim of the species, which is at the same time the aim of the sciences, of inventions, and of every man who aspires to real, solid glory, founded on the happiness of his fellow-creatures, is the melioration of the human condition upon earth. The treasures of human knowledge are not destined either to flatter the pride of man, to feed his curiosity, or to amuse his leisure. They should be made subservient to his preservation, (which is their common *aim*) or to the alleviation of the numberless evils with which he is every moment beset.

To diffuse pleasures and enjoyments of every kind among a greater number of persons, and thus to create their own happiness, is the common, rational, and legitimate *aim* of all those who concur in the advancement of the sciences. It is likewise the *aim* of each science in particular,

and especially of *morality, legislation, politics, and genuine philosophy.*

The *object of morality* is to teach man wherein consists that happiness the acquisition of which is his general *aim*; to direct him in the choice of the particular *aims* which he ought to propose to himself, according to circumstances, to attain happiness, and to point out to him the best ways of accomplishing these different *aims*.

The proper *object of politics* is to render a nation prosperous at home, and respected abroad.

Besides the general and common *aim* which we have assigned to all the sciences, each art and each science has its *particular object or aim*, which ought to be thoroughly studied by him who wishes to become a proficient in it, to improve its methods, or to extend its sphere.

In *natural philosophy*, whose *object* is a knowledge of the phænomena of nature, the experiments in which our various instruments are employed are nothing but imitations of those phænomena, the *aim* of which is to unfold to us their *causes*.

The *essential principle and aim* of the *imitative arts* is not only to produce representations of objects, but also to give to those representations ideal beauties, the association of which is capabl

of moving the soul as much, or even more, than the real presence of the object imitated.

The *aim* of the *musician* and his art is to excite in the soul emotions and feelings which have a general analogy with those which would be caused by physical and moral objects, the immense variety of which does not admit of the production of an exact imitation.

In the *dramatic art*, the *object* or *aim* of tragedy is, by means of the situations and sentiments which it imitates, powerfully to affect the imagination of the spectator, which, being moved, works upon the passions of pity and terror by the natural and necessary effect of the sympathy subsisting between the faculties of the soul.

The chief *aim* of *oratory* is to persuade rather than to convince, and to incline the auditors to what is just, though often contrary to their opinions and their passions.

The course usually pursued in the sciences, and in common life, not being directed towards a fixed object, is in this case, as Bacon observes, but a perpetual turning round, an agitation without aim or end. It is of importance in every kind of study, labour, and action, to keep an *aim* steadily in view, and to take for that *aim* practice and results.

The *law of aims* is of general application, like that of the *point of support* and all the preceding laws.

The *aim* is the *goal* or *point of arrival* towards which we tend, as the *point of support* or *base* is the *point of departure*. These two laws are closely connected with one another.

The law of the *point of support*, that of *causes*, and the two laws of the *chain* and of *gradation*, teach us in every undertaking and every thing to watch with care over its *commencement* and its *progress*, which is frequently imperceptible ; and the law of *aims* warns us to consider the *end*.

We ought always to know exactly the *point from which we set out*, and to ask ourselves what *point we are desirous of arriving at*. But, in order to attain the *end* or *aim* which we propose to ourselves, we ought to study and employ the *means* capable of conducting to it. We should apply the principles of Aristotle's philosophy, which consists almost entirely of considerations on *ends* and *means*, and on their mutual and necessary connection. Too often we are desirous of attaining an *end*, without possessing the *means*, which ought always to be *proportionate* to it. We wish to produce an effect without having studied its law of production. It is a *mistake*

arising from ignorance or disregard of the great law of *generation* or *causes*, the law of *proportions*, and the law of *aims*. In all the operations of which the universe is the theatre, the author of nature has invariably a determinate *aim*, a fixed point at which he arrives by several different ways. He makes a great number of *means* concur in one *result*. He always combines *variety* in the *means* with *unity* in the *end*.

Every science, every action of human life, ought, in like manner, to have a positive and determined *aim*. It is in the study and judicious choice of these different kinds of *aims*, which vary according to the science or thing with which we are engaged, and in pursuing the best way to to attain them, that the exercise of reason chiefly consists.*

* Our transient life on earth is but an *and proportioned* to the nature of the thinking principle which is manifested in us, to the extent and activity of our conceptions, and to the boldness and insatiability of our desires. Our imaginations and our souls require a wider career, an aim more lofty and more conformable to our destination, which death seems to hide from our feeble vision, but which a secret instinct seems to reveal to us. The *law of aims*, duly considered, leads us then, like the other laws, to the cheering hope of a future life, the noble prerogative of an immortal soul.

CONCLUSION.

MONTESQUIEU observes, that "the *laws*, in their most extensive signification, are *the necessary relations which arise out of the nature of things.*" He thus points out their source very accurately ; but I will venture to assert that he has not defined their essence, and what they really are, with equal precision. The *laws* which really spring from the nature of things are *rules of action*, or the *rules according to which bodies act.* This definition, as well as that of Montesquieu, correctly applies to each of our general laws. All these laws, which fit, as it were, into one another, appear to form a vast whole, and to furnish solid *bases* and well-cemented foundations. They mutually join and link into one another : they furnish each other with reciprocal *points of support.* The want of a *point of support* is a *necessary relation*, which springs from the nature of bodies, and is applicable to all beings. It is a *general rule*, to which we ought to conform our actions, by always giving to them a solid base and a rational and useful *aim.* The *aim* is also a kind of *point of support*, towards which we direct our course.

These laws proceed by *gradation*, and conduct

us from the known to the unknown; gradation, though frequently imperceptible to our view, or apparently very sudden and rapid, being a *necessary relation*, common to all the operations of nature and of man. They are like distinct and luminous points, the union of which composes a great mass of truths and a kind of central focus. They make beneficial and productive exchanges between one another; and to enable us to advance in a gradual but sure manner towards a clearly indicated *end* (the improvement of our faculties by a better employment of our time, or happiness); they furnish us with instruments, levers, methods, and means of direction and operation in the three departments, physical, moral, and intellectual, which embrace man and the universe.

These general laws are susceptible of being studied and observed in all the sciences, in all situations, and especially in the moral and political relations, and in society. We meet with them every where: their action is universal; and they are never violated with impunity. Each in his sphere may examine, verify, and take them for rules and guides. Private and common life, public affairs, political events, *legislation*, *diplomacy*, *commerce*, *agriculture*, *manufactures*, the *mechanical arts*, the *military art*, *medicine*,

education, the sciences, the fine arts ; and, above all, the great art of employing time, which can alone advance all the others, alike afford occasions and means of applying them.

To conclude, our general laws furnish the reason and the understanding with instruments, which may be employed well or ill, according as the reason is more or less sound, and the understanding more or less enlightened ; for the best things are liable to be spoiled by the use which is made of them. It behoves us, above all, to determine with precision what we ought to aim at, to rectify and fix the *will*, which is the chief *point of support* in moral conduct ; and then to acquaint it with the various uses which may be made of these instruments. Such is the twofold object of the following work, in which the general principles that have here been laid down will be successively applied and put in practice. It is principally in this point of view that the ideas developed in this Introduction are connected with the Essay on the *Art of Employing Time*.

*Application of the Twelve preceding General
Laws to the particular Conduct of Life ;
for the Use of young Persons.*

LET us now briefly recapitulate some of the most important applications of our *twelve general laws*, with especial reference to the *employment of time* and to the *conduct of life*, that we may put a compass, as it were, into the hands of youth, for whom this work is particularly designed. "Here," we would say to them, "you have sure and positive rules, which you may consult with benefit in all the critical circumstances in which you may stand in need of counsel and support."

1. *Law of the Point of Support.* Take a reasonable *point of support*, the point of possibility. Fix yourself upon real bases, which it behoves you to lay down solidly, while examining with care your mind, your faculties, your situation, and your duties. This calm and deliberate scrutiny will preserve you from the illusions of an ardent imagination, which frequently exaggerates means and powers, which exalts the desires and hopes, which generates vague, false, and ambitious conceptions, and urges into theories, abstractions, and the region of chimeras and extravagance. In all things take care to

have a *base*, fixed *principles*, a *point of support*; know the point from which you set out, and be sure that sound reason and sober views, properly connected and combined, and mutually supporting one another, govern your resolutions and your plan of life, and regulate your actions.

2. *Law of Causes or Generation.* Study with care the daily, and often almost imperceptible, *causes* of the changes in your health, of the greater or less vigour and energy of your physical, moral, and intellectual constitution, and you will discover that the good and evil which succeed each other in life, in your pleasures and your pains, depend almost always upon yourself, and you will become, to a certain degree, the arbiter and governor of your destiny. *There is no effect without cause.* In every thing, causes thoroughly studied, investigated, and appreciated, extend *ad infinitum* our power over ourselves, over other men, and over things.

3. *Law of the Universal Chain.* Never lose sight of the intimate connection that exists between the different elements of which man is composed. The debility of your *body* robs your *heart* and *mind* of their energy; and the want of vigour in the *mind* and *soul* subjects the *body* to the most disgraceful propensities, and the most bane-

ful passions. When the *body* languishes and the *mind* is enfeebled, the *soul* also droops: when the *soul* is paralysed and the *body* enervated, the *mind* sinks along with them. Thus man is a whole, the three elements of which, necessary to one another, are by their nature blended and intermingled:—an important truth, but which is too much disregarded. All things are connected together in the human individual as in the universe.

4. *Law of Gradation.* On observing that strict continuity which is manifested in the individual being, and in the totality of beings, habituate yourself to go through the links of the *chain* and the steps of the *ladder* with *progression* and *gradation*, without attempting to hurry or force any thing before its due time. A proper circumspection, which is not incompatible with presence of mind, which never lets slip the favourable opportunity, but proceeds with prudence, method, and deliberation, will preserve you from the rocks upon which superior talents themselves frequently strike. It will teach you to avoid that eager impatience, that rash imprudence, that indiscreet precipitation, too common in the young, and which, by urging them to attempt to grasp every thing, prevent them from seizing, or at least from

retaining any thing. These dangerous qualities would have no other effect than to exhaust your energies to no purpose, and to destroy that individual power, which each ought to be anxious to extend, augment, and consolidate. *Every thing in nature is succession and gradation.* Learn to obey this general law, and to take it for the rule of your conduct.

5. *Law of Division and Re-union.* First divide the things which your body and your mind design to undertake, for the purpose of afterwards duly arranging and *re-uniting* them; but aspire not with foolish presumption to do every thing at once. Take up one by one the *physical habits* which you think it beneficial to contract, or those of which you design to break yourself; the *moral observations* which you make on yourself or your fellow-creatures; the *studies, sciences, methods*, with which you would enrich your mind; and the different *portions of life*, which you are desirous of employing to the best advantage: then connect and combine these habits, these observations, these acquirements, these results of the various uses of each of your days, in order to form a whole out of them, and to direct them to one object—the melioration of your condition, or your physical, moral, and intellectual improvement—

in a word, your *happiness*. *Division* and *re-union* are two indispensable means for introducing order into our ideas and actions, and may be considered as two generating principles, which must act first alternately, then simultaneously, in order to be productive.

6. *Law of Exchanges*. Establish beneficial exchanges between your different faculties, which ought by turns to assist one another. Let your physical powers resign, in some measure, their influence to the moral and intellectual power, when the latter ought to act; and let them in their turn borrow its energy and intensity, when a physical object claims your exclusive attention and all your means, those of the passions or moral affections, those of the mind or the thinking faculty, and those of the body. *All is exchange between men and between other beings*, as well as in man himself, between the different faculties of which he is constituted. *Exchanges*, which may be considered as the soul of society, or the basis of justice, morality, and the social relations, are a necessary principle of creation. *Concurrence, the result of exchanges, is a principle of power*.

7. *Law of Equilibrium, or the Due Mean*. Take great pains to restrain your soul, your fa-

culties, your passions, your desires, your temper, within proper bounds, and use not your powers unless with *moderation*, keeping them in *equilibrium*, and attempering one by the other, instead of abusing and destroying them by baneful excesses.—*In all things observe a due mean.* This is the real point of wisdom and virtue. *Stat medio virtus.*

8. *Law of Action and Re-action.* Alternate motion and rest are requisite for the different faculties of man, if he would husband and preserve their energy. They have a reciprocal action and re-action upon one another, as we have observed in treating of the *universal chain*. *Every thing in nature* (and especially in morals and politics) *is subject to the general law of action and re-action, or alternate motion.*

9. *Law of the Mixture of Good and Evil.* Whilst indelibly impressing upon your mind this truth, numberless proofs of which every where present themselves to your view, namely, that there is in all human things a universal mixture of good and evil (which is a connection of things with man, and a *necessary relation* in our condition), learn to separate *truth* from *error*, which frequently differ only in a delicate and almost imperceptible shade. Your judgment will be

more steady and more sound, your reason more clear, your mind more accessible to truth. Learn too, on all occasions, to derive some advantage even from adverse circumstances; and form for yourself a practical philosophy to serve for a shield against the accidents of all kinds to which nature and fortune expose you. Acquire the happy knack of looking, even in the misfortunes that may befall you, at the most favourable aspect which they can present. The doctrine of *optimism*, or that whatever is, is best, confined within due limits, contributes materially to human happiness. Every thing on earth has to a certain degree its good and its bad side.

Acquire also from the particular consideration of *mistakes* an habitual disposition not to form your opinion of persons and things till you have subjected them to a strict and scrupulous examination. You will thus avoid *misconceptions*, the rock on which the human mind usually splits, the unfortunately too prolific cause of vices and crimes, of prejudices and errors, of individual and general calamities. You will learn above all to show an indulgent toleration in examining the different opinions of others, who are commonly warm partisans or bitter enemies of certain persons or doctrines, only because they have con-

ceived imperfect, incomplete, and consequently false notions of them, by looking at them in a single point of view. Mistakes, arising from want of reflection or ignorance, produce the greater part of our faults and misfortunes.

10. *Law of Obstacles converted into Means of Success.* Most persons have an imagination that is ingenious in tormenting them, and the misdirected activity of which often changes the *elements of preservation* and the *means of happiness* into *instruments of ruin and calamity*. You ought, on the contrary, to strive to vanquish all *obstacles* by the efforts of cool and sober reason, in order to convert them into *means of success*: this is the triumph of wisdom and genius. Accustom yourself to bear with patience crosses, reverses, vicissitudes, misfortunes, which are useful to try fortitude, to strengthen virtue, to excite talent, to set in action the springs of the mind and soul, to enlighten, instruct, and improve by the lessons of experience. *Every inconvenience and every obstacle may be converted, in some measure, into an element and medium of success*; or at least we may in all cases derive from them some advantages.*

* Cardan, a philosopher of the fifteenth century, published a treatise, intituled: *De utilitate ex adversis capienda*—"On the

11. *Law of Proportions.* Apply also with intelligence and sagacity to your daily conduct our law of *proportions* or *harmonies*, which ought to govern and direct all your actions. Banish far from you all desires incongruous with your faculties. Embark in such undertakings only as are *relative* or *proportionate* to your means, and chuse the favourable moment for executing them properly. *All things are relative.*

12. *Law of Aims.* Lastly, never lose sight of the *aim* which you ought to propose to yourself in the whole and in the details of life: your *preservation*, your *happiness*, which are composed of *three elements* or particular aims; *health, moral improvement, instruction.* *In all things there should be an aim.* That of every prudent man is his welfare, his happiness, which he never separates, even for the sake of his interest, from the idea of the happiness of others.† *All things are connected.*

These different laws, or general rules, profoundly

benefit to be derived from adversity." Being duly sensible of the value of time, he adopted this motto:—*Tempus mea possessio, ager meus*—"Time is my possession, my estate."

† This great moral truth, which is connected with all our general laws, belongs more especially to the three principles of the chain, exchanges, and action and re-action.

studied, not confined to an empty and barren theory, but reduced to practice, and daily applied, in words, actions, business, undertakings of every kind, studies and observations, become a sort of universal, philosophical, moral, and essentially practical code, and furnish a compass and rudder for steering with safety among the rocks that are scattered over the ocean of life.

ANALYTICAL TABLE

Of the GENERAL LAWS proposed as the foundation of Methods of every kind, and as susceptible of an infinite number of practical applications in the Arts, Sciences, general Philosophy, and the Conduct of Life.

1. Law of the Point of Support.—*A point of support is requisite in every thing.*
2. Law of Causes.—*There is no effect without cause.*
3. Law of the Chain.—*All things are connected.*
4. Law of Gradation.—*All is series and gradation.*
5. Law of Division and Re-union.—*It is necessary to divide and re-unite, in order to create—Division and re-union are two generating principles, which must be combined in order to be productive.*
6. Law of Exchanges and Concurrence.—*There is nothing but exchange between men and all other beings—Exchanges are a necessary principle of creation. Concurrence, the result of exchanges, is a principle of power.*
7. Law of Equilibrium.—*A just medium should be observed in all things.*
8. Law of Action and Re-action, or of the Alternate Motion.—*In nature all is action and re-action.*
9. Law of the Universal Mixture of Good and Evil.—*All human things are a compound of good and evil.*
10. Law of Obstacles rendered beneficial.—*Every obstacle is capable of being converted into a medium of success, or at least of affording certain advantages to those who understand the art of turning them to account.*
11. Law of Proportions.—*All things are relative.*
12. Law of Aims.—*In all things there must be an aim.*

THE ART

OF

EMPLOYING TIME.

“Time wasted is existence, used is life.”

I. OF HAPPINESS :---THE GRAND AIM OF EDUCATION, AND LIFE ---OF THE ELEMENTS OF WHICH IT IS COMPOSED.

THE universal tendency to well-being or happiness is an absolutely general principle in the moral world, as the law of gravity in the physical world : but, while the physical law impels all bodies toward one common centre, the object toward which the moral law attracts all animated beings, appears not to be determined with the like precision. It is not encompassed by a narrow circle which might prevent the imagination from going astray, nor bounded by limits clearly defined and established for all mankind. It varies with

individuals, according to their inclinations, passions, and dispositions, their different degrees of reason and intelligence, and the different influences by which they are actuated. Hence the frequent deviations in the moral order, while the physical order of nature is in many respects constant and invariable. It is therefore expedient, nay even necessary, to obtain a firmer point of support for human weakness, a more solid base for the edifice of morality, for the felicity of mortals on earth, for the chief and most important of sciences—the science of happiness. It is requisite to determine in a fixed, evident, irrevocable, and almost uniform manner, for all men, the essential character and nature of the aim toward which they ought to tend; the elements of which real happiness consists; the exact limits which circumscribe it; and the surest and easiest means by which it may be attained.

Happiness, or *well-being*, is the universal aim of education and life with the human species in general, and with each individual in particular: but though all men necessarily tend toward this aim, either by reflexion or by instinct, and though there is no rational being but desires to be happy, yet the greater number know not in what happiness really consists, and pay dearly for this baneful

ignorance. Some, agitated by restless passions, or misled by seductive illusions, weary themselves in a toilsome, distant search of it, when they might easily find it in their very path. Others, by a still more pernicious mistake, employ the means of ruin and misery alone for their conservation and felicity: they destroy while they would preserve themselves; they embitter their lives in seeking to render them happy.

Observation, experience, and reason, seem to point out three essential and necessary elements of happiness: *health of body, elevation of soul or morality, and cultivation of mind or knowledge*. These three elements are the fundamental bases, but not the only instruments of felicity. Several other means of happiness, secondary and accessory, though highly important in themselves, are connected with, and necessarily dependent on, these three primary causes. Fortune, for example, the object of such ardent desire, and frequently reputed the highest good, must at first have been the lot of him only who knew how to acquire it by his labour and his talents, by the twofold exertion of body and mind, by the esteem and confidence which his moral qualities had inspired. If it has been transmitted by inheritance, it cannot be preserved but by discreet conduct,

and by a spirit of prudence, regularity, and economy. Be its origin what it may, it confers pure, genuine, extensive and diversified pleasures on him only in whom are combined the advantages of a *sound mind, a well-regulated soul, and a cultivated understanding*. Wealth, like power, honours and reputation, is a *mean*, but not an *end*: it affords real and solid advantages to him who knows how to make a proper use of it for himself and others; but it cannot singly bestow happiness, and is valuable only when accompanied by the three means above-mentioned. Let us suppose, for example, a man possessed of an immense fortune, but amidst his wealth tormented by disease, immersed in the grossest ignorance, destitute of morality and feeling, and consequently a stranger to the delights of friendship, the charms of society, the pure pleasures of love, and those with which the arts and sciences embellish life: how could such a person be happy? All the other possessions that excite our desires are in the same predicament: none of them is of any value without health, which enables us to enjoy them; without tranquillity and dignity of soul, evenness of temper and disposition, or a good moral constitution, which afford the double advantage of having friends who increase our happiness by

sharing it with us, and of standing well with ourselves; lastly, without culture and elevation of mind, or knowledge, which qualifies us the better to appreciate all the means of preservation and well-being, and confers on them an additional charm.

II. OF THE FUNDAMENTAL PRINCIPLE OF EDUCATION AND MORALITY, OR THE FIRST LAW OF NATURE, WHICH BINDS ALL MEN TOGETHER BY THEIR RECIPROCAL INTERESTS.

THE principle of *education*, or the *science which aims at forming men and rendering them happy*, is completely embraced in this law of nature, which is likewise the basis of morality and the first link in the social chain:—"It is in the reciprocal well-being of each of the individuals composing society that each individually and all together can find happiness, and the means of meliorating their condition; or, the particular interest of each tends naturally, and by the force of things, to identify itself with the general interest." He must be thoroughly convinced of this truth, who seeks demonstrations of it in the circumstances which preceded and attended the formation of societies in their successive periods of improvement, and in their present state of civilisation.

Man is naturally a social being. Society is as

necessary to him as the air he breathes. He never can, with impunity, separate himself from his kind, and seek an exclusive happiness. The individual welfare, and the public welfare, are two things which cannot be divided. A judicious employment of the means of our own preservation, and that of the great social family to which we belong, which tends to produce in each of us *healthy and robust bodies, well-regulated souls, and expanded and cultivated understandings*, leads at the same time to happiness and virtue. The latter is the conformity of our will and actions with the welfare of our fellow-creatures, or with the public welfare, from which our particular welfare results. All these things have a necessary connexion with one another. We thus view the question of happiness in a more correct and comprehensive manner, and never separate private interest from the general interest of mankind.

III. OF THREE POWERS OR FACULTIES, WHICH MAY BE DISTINGUISHED IN MAN, AND THE DEVELOPMENT AND PERFECT HARMONY OF WHICH ARE NECESSARY FOR HIS HAPPINESS.

THE personal well-being of each individual, and the faculty of contributing to the happiness of others, which essentially belongs to it, result from the concurrence and perfect harmony of the three

distinct powers, which, according to the received opinion, compose and constitute man :—

1. The *heart*, or the moral instinct, which produces actions ;

2. The *mind*, or the conception and intelligence which combines and directs them ;

3. The *body*, or the physical power, which executes them.

If these three powers, or faculties, were not simultaneously exercised and developed by education, man would possess neither personal happiness, nor the means of contributing to the happiness of others.

If the *body* be not sound and robust, the happiness of the individual is impaired ; the *mind* loses its vigour, and the *soul* its energy. An ever precarious state of health does not permit a person either to devote his attention to the sciences, or to be serviceable to others and to himself.

If the *mind* be not cultivated by instruction, man, brutalized and degraded, renounces his noblest privilege ; he is cut off from the most delicious pleasures, and the most solid wealth.

If the *soul* be not fraught with a sense of its dignity, nor elevated to the level of its noble destination ; if the *heart* be not tender and generous ; *physical strength* and the talents of the *mind* are

vain advantages, which, when ill directed, are frequently injurious to society in general, as well as to him who possesses merely to abuse them.

V. OF THE THREE POINTS OF VIEW IN WHICH THE EMPLOYMENT OF LIFE OUGHT TO BE CONSIDERED.

IN order then to be happy, we ought to turn our *physical, moral, and intellectual* faculties to due advantage. The *first*, which comprehend bodily health and a sound constitution, require keeping up by daily and moderate exercise; walking or riding, manual occupations, habits of cleanliness, sobriety, and temperance, and abstinence from every kind of excess. The *second* are connected with the practice of virtue, nobleness and purity of soul, and the serenity of a conscience clear and void of reproach; that delicious serenity which springs from the good we do and the evil from which we abstain. In this respect there is implanted in our hearts a secret and unexceptionable instinct, a moral sense which speaks to all men, a warning voice, to the suggestions of which they ought to listen, and whose advice they should follow. Lastly, the intellectual faculties are not developed and improved without a careful cultivation of the mind, and studies judiciously adapted to one another.

The whole consists in these three things: to acquire at the same time a sound constitution, good moral habits, upright sentiments, and a correct mind, accustomed to think, and capable of discerning what is good and useful. These three elements of happiness belong to him who devotes all his thoughts and all his moments to the purpose of acquiring and preserving them.

For these reasons we shall distinguish three different objects in education, and we shall consider, under these three points of view, the employment of life, and the aim which every wise man ought to propose to himself.

V. OF THE TERM EDUCATION, IN ITS MOST LIMITED AND MOST COMPREHENSIVE SIGNIFICATION.

Education, in the most limited sense of the word, is but the *apprenticeship of life*, or the conduct of an individual during the first portion of his existence; for we exist a long time without living, and when we begin to live we are not capable either of guiding or governing ourselves. But real education, taking the term in its most extensive sense—that education, whose precepts and benefits man can apply to himself, commences more especially at that period of life when reason receives its first expansion, when the soul essays,

if I may be allowed the expression, its powers and its inclinations, when the mind acquires vigour and consistency, when the judgment becomes matured, when the heart still preserves its primitive purity; when, in short, the youth begins to be conscious of what he is, to reflect seriously on his destination, and to mark out for himself a plan of conduct founded on principles which he has thoroughly examined. This second education, so powerful, because it is free and voluntary, so valuable and so important, because the impressions which it leaves behind are more durable, and commonly fix our opinions and sentiments for the rest of our lives, may and ought to be continued till their latest moments. Solon said, that he could not be too old to learn. The wise man, who wishes to be happy, never ceases, even at the most advanced age, to prosecute his education, improvement, and well-being. These three words here express the same idea. What, in fact, is wisdom but the science of virtue and happiness?

Till the latest period of life a man may, if he pleases, exert over himself the action and influence of his observations, experience, and reason; he may profit by the example and the advice of others, to correct, improve, and instruct himself; to tend toward happiness, or to approach it by

the development and melioration of his *physical, moral, and intellectual faculties.*

VI. OF THE VALUE AND ECONOMY OF TIME, CONSIDERED AS AN INSTRUMENT BESTOWED ON MAN BY NATURE. UTILITY OF A METHOD WHICH WOULD ENABLE HIM TO DERIVE THE GREATEST POSSIBLE ADVANTAGE FROM IT.

WE have distinguished the three faculties which constitute man, and compose the real elements of his happiness. To keep them in an ever increasing state of energy and action, each individual has at hand, and at his disposal, a grand and universal instrument, furnished by Nature, namely, *Time*, an inestimable treasure, which few can duly appreciate, the greatest part of which they waste in frivolous, useless, or pernicious employments, while, by the most absurd of inconsistencies, they complain of the shortness of life, and yet strive themselves to abridge its duration. The time that we waste, observes a modern poet, might make us immortal: it might do more, it might make us happy.

Whoever is acquainted with the value of time, and understands the art of employing all his moments for his advantage and improvement in the three ways here pointed out, doubles his existence. By this alone he obtains a great superiority over the generality of mankind; he acquires a real

and personal wealth, independent of fortune and circumstances.

The proper employment of time is a real science, which must be acquired by study, like other human attainments. Time, says Bacon, is one of those things, which, when lost, cannot be recovered. If then an easily practicable method can be contrived for obtaining all the advantage possible from this instrument, such a method will not be of less utility than the invention of watches and clocks has proved for determining the regular division of the different parts of the day and night.

Before this division of the days into hours, and of hours into equal, distinct, and separate intervals, many moments were lost for want of a standard to regulate the use of them, by an exact proportion and a strict economy in their various applications. But the pendulum produces only a mechanical division of time; the *method of employing time* must multiply what the pendulum divides. It enables us to find days in hours.

VII. FIRST CONDITION PROPOSED FOR REGULATING THE DUE EMPLOYMENT OF TIME. PREVIOUS QUESTION WHICH IT IS NECESSARY TO ASK OURSELVES BEFORE WE THINK OR ACT: "WHAT END WILL IT ANSWER?"

Cui bono? "What end will it answer?" is a previous and necessary question, which ought to

precede all we do and all we say, every procedure, and every kind of occupation. It is easier than may be supposed to contract this habit. Every man, in his particular art, acquires analogous habits without difficulty or effort, by the mere continuity of action. The orator, who has exercised his talent of extemporaneous declamation, captivates, charms, and hurries us along by the coherency, the energy, the rapidity of his address. The musician, who is a proficient in his art, runs over at once with a light and confident touch the cords or keys of an instrument; he calls forth from it hurried tones, the harmony of which enchants us. The practised hand of a painter blends, by a happy mixture, the various tints into a great number of colours, which seem obedient to his genius. A dancer forms regular and rapid steps, with precision although with velocity. We admire the ease, the agility, and the accuracy of his movements. Habit alone, and daily practice, produce these results, which excite our astonishment. Let us contrive to attain, by similar practice, by a habit easily acquired, the like precision, combined with the like promptitude, in our moral conduct. Let us accustom our minds to call forth on all occasions this brief reflexion—*Cui bona?* “Of what benefit?” which ought to be to us a kind of

familiar and tutelary spirit, ever ready to appear when we need its aid. We shall thus acquire great presence of mind, and a correctness of moral and intellectual views, which will enable us to avoid many faults, indiscretions, inconsiderate actions, and an immense and irreparable loss of time. Why should not man, whose noblest prerogative is reason, make such a continual use of that admirable faculty as never to act, or speak, without some fixed aim?

But a rule of conduct, in order to produce real and salutary effects, must be adapted to the weakness and levity unfortunately belonging to the human mind. It is necessary to fortify man against the inconveniencies and dangers attached to his nature. We shall therefore strengthen the first condition, by a second of equal importance.

VIII. SECOND CONDITION.---A DAILY EXAMINATION MADE REGULARLY EVERY MORNING AND EVENING OF THE EMPLOYMENT OF THE PRECEDING DAY.

EVERY person anxious to make himself better, and to promote his happiness, should daily devote a few moments, either before he retires to rest, or in rising in the morning, to a retrospect of what he has done, said, heard, and observed during the

preceding day. This rapid review will occupy precisely a portion of time which is otherwise lost by all mankind, but which, by this method, is gained and employed in the most beneficial manner. Seize this moment, which seems to be marked out by nature, and which social life itself always allows you to dispose of as you please, to examine your soul, to recollect all that you have seen, remarked, learned, all that you have said wisely or unwisely, usefully or uselessly, to the benefit or detriment of your body, mind, and heart. Demand of yourself a strict account of the employment of all your moments during the preceding twenty-four hours. Ask, as it were, this question of each day that has just passed :—
“ In what respect hast thou promoted my physical, moral, and intellectual improvement ; in a word, my happiness ? I made thee my tributary, hast thou paid thy debt ? ” Consider time as a farmer, whom you bind down to pay a certain rent, by a lease, the conditions of which he must strictly fulfil, or as a person of whom you have a right to exact a certain toll or duty. This toll, or this rent, is to be paid at each fixed term.*

* Time may also be considered as a moral being, which, ever present and ever fugitive, seems every moment to say to us :

Life thus becomes an equally agreeable and instructive journey, in which no lesson is forgotten, no example lost: every moment is rendered subservient to health, the acquisition of knowledge, or moral improvement. Can it be doubted that this method, pursued with constancy and perseverance, would produce effects, slow, imperceptible, and progressive, it is true, but not the less certain and infallible?

IX. THIRD CONDITION.—A WRITTEN SUMMARY OF THE DAILY ACCOUNT OF DEEDS AND WORDS, OR USE OF AN ANALYTICAL JOURNAL.

LET us add a third condition to the two former. It is impossible to guard man too much against his own inconstancy, or to confirm him too strongly in a habit that is acknowledged to be good and beneficial.

The mind would not wander in the proposed examination; it would be circumscribed within

"Here I am, seize me!" and who, while flying, asks this question: "What use have you made of me? what advantage have you derived from the moments that I have given you in my course?" How many would be obliged to answer in the words of the emperor Titus, when reproaching himself for suffering a day to pass without doing a good action: *Diem perdidit*—"I have lost a day."

a very narrow space of time, all the occurrences of which would be still recent and fresh in the memory ; and it would confine its attention to the three branches which we have determined. This habit, however, might not be pursued with assiduity ; a person might relax and become careless ; he might not be always equally scrupulous in following the gradual progress which he has made, or in guarding against an involuntary negligence, by which he would soon be led away from the object.

We must not therefore limit ourselves to an act of mere meditation and reflection, but habituate ourselves to fix the results of them in writing in a book, in which it would be necessary to enter only a few lines every day. By committing to this book a summary of what we have done and said, and the principal particulars of the employment of our time, we shall have a daily analysis of our situation and conduct, a kind of thermometer, indicating the different degrees and variations of temperature in the physical, moral, and intellectual constitution.

“ Why,” says Condillac, in his excellent *Treatise on Education*, “ do we not direct the attention of a child, or of a youth, to what passes within him when he reasons and forms opinions,

when he feels desires, when he has contracted habits? Why do we not point out to him the occasions on which he has employed his faculties to advantage or disadvantage, and teach him by his own experience to manage them better? When he has been led to these first observations, he will exercise his faculties with more skill; he will in consequence be solicitous to exercise them, and will gradually acquire a habit of this exercise." Such is the great and inestimable advantage of the proposed analysis.

The necessity which a person imposes on himself to write regularly a few lines every day occupies five, or, at the utmost, ten minutes, every morning after he has risen, and is compatible with all the circumstances of life.

This method, which at first view, may appear tedious and troublesome, but which habit and a firm resolution will soon render simple and easy, is already pursued in the army, where the subalterns daily deliver to their superior officers, and these to the colonel of the regiment, an accurate report of all that has passed in their respective companies. This practice is not interrupted even when nothing new has happened; a continual vigilance and rigid discipline are thus maintained. Are we then less interested in watching over our-

selves than an officer in watching over his men? Does not such a practice, applied to our individual life, and the employment of our time, promise the greatest advantages? Is it not calculated to keep all our faculties in a state of tranquillity, equilibrium, and harmony?

X. RECAPITULATION OF THE THREE PARTS OR CONDITIONS
OF THE PROPOSED METHOD.

THE triple habit of saying and doing nothing without asking ourselves : *Of what benefit will it be?* of accounting to ourselves, night and morning, for the use we have made of the preceding day ; and of committing the substance of this account to writing, constitutes the basis of the proposed method, all the results of which it is now our business to develop, and to enable the reader to calculate and appreciate.

XI. OF THREE PRINCIPAL ADVANTAGES WHICH THE PRACTICE
OF THIS METHOD CANNOT FAIL TO PRODUCE.

WE shall first remark, that the continual practice of this method must necessarily produce three principal advantages :

1. Health is not impaired, at least, not by our own fault. Now, most of the diseases with which men are afflicted, and which deprive them of the free disposal of great part of their lives, are occa-

sioned by their own fault, and are the offspring of their negligence, their passions, or their excesses.

2. The soul is not debased. As it watches over itself with continual solicitude, the primitive purity of its essence is not corrupted by the intercourse with mankind, or by the contagion of bad examples. Peace and dignity of soul, constantly preserved with care, prevent the physical constitution from being impaired and disturbed by the influence of malignant and corrosive passions, and the understanding from being beclouded and warped from its natural direction, by the anxiety and care which accompany repentance and remorse. Such is the intimate connexion of morals with the two other branches of education.

In nature all is gradation. Man, equally susceptible of being well or ill, good or bad, ignorant or enlightened, does not arrive at any of these three states but by a slow and insensible progression. It depends upon himself to turn this progression to his advantage. The rule which he has adopted, not to suffer a day to pass without summoning all its moments before the bar of reason, to examine whether they have been beneficially or uselessly employed, never allows vicious habits time to take root. If he has occasionally been diverted from the real road to health,

wisdom, and happiness, he perceives his mistake soon enough to return to it without difficulty. He can judge every day if any perceptible alteration has taken place in his constitution; if the soul has any thing wherewith to reproach itself, any thing unworthy of and calculated to debase it; if the cultivation of the mind has been neglected or misdirected; or, on the other hand, he can remark, from day to day, some progress in the development of the powers of the body, in the elevation and dignity of the sentiments of the soul, and in the useful application of the intellectual faculties, or the thinking power.

So far from a moment of life being lost or misemployed, every instant is put out, as it were, at high interest, and produces a revenue, results of preservation, improvement, and happiness.

Let us now admit that most persons, for want of knowing the value of time, spend unprofitably about a third of each day, either by an excessive prolongation of the hours spent in eating, drinking, and sleep, or in play, or other frivolous and frequently pernicious occupations, and we shall find that the proposed method, which gives to a young man one-third of his life lost by all others, confers on him the advantage of numbering thirty years appropriated to his improvement, his in-

struction, and his happiness, during the same space of time that has produced the rest of mankind a result or revenue of no more than twenty years. If we now consider that the strict economy which directs the application of his time allows a greater profit to be derived even from that portion of it which is usefully spent, we shall admit that the difference or proportion of ten years in thirty, in favour of the person who practises our method, is rather below than above the truth.

XII. OF SEVERAL EXCELLENT HABITS ALSO RESULTING FROM THE USE OF THIS METHOD, AND TENDING TO THE IMPROVEMENT OF MAN IN THE THREE WAYS ABOVE-MENTIONED.

SUCH a person, moreover, contracts the following habits, which are connected with the three principal results of which we have treated :

1. Of doing nothing that is hurtful to his constitution, and of pursuing the regimen best adapted to the preservation of his health ;
2. Of watching over himself ;
3. Of destroying or gradually correcting his defects ;
4. Of studying and learning to know mankind ;
5. Of chusing his friends, and associating preferably and exclusively, as far as his situation permits, with those in whose company he can gain improvement and information ;

6. Of turning to account all those with whom he may happen to be for his instruction and improvement ;

7. Of speaking little and always to the purpose, and of being able to be silent and to keep a secret ;

8. Of observing and reflecting, of maturing his reason, and of appropriating to himself the experience and knowledge of others ;

9. Of exercising his memory ;

10. Of analysing with precision ;

11. Of writing with ease, and forming at once his judgment and his style ;

12. Of appreciating the value of time, and living much more than the rest of mankind, who frequently waste purposely, and from listlessness, a great number of hours every day, and many years in the course of their lives.

Lastly, he frames for himself fixed and invariable rules of conduct, the fruit of experience and reflection. He refers every thing to his physical, moral, and intellectual improvement, to his utility, to his well-being, considered in these three points of view. The question ever present to the mind and reason—*Cui bono?*—"Of what benefit is it?"—serves as a guide and beacon in all the circumstances and all the situations of life ; it

performs the office of a real *lever*, or of a *point of support*, which doubles the power.

XIII. OF TWO ACCESSORY CONDITIONS FOR RENDERING THE METHOD MORE ESSENTIALLY USEFUL AND BENEFICIAL. FIRST CONDITION:—THE PRACTICE OF KEEPING THREE DISTINCT AND SEPARATE ACCOUNTS, AND ENTERING IN THEM AS THEY OCCUR TO THE MIND ALL THE USEFUL OBSERVATIONS RELATIVE TO EITHER OF THE THREE FACULTIES WHICH MAN OUGHT TO IMPROVE.

Two accessory conditions serve to complete this method.

The first is, to have, besides the analytical summary already mentioned, three separate books, or one book divided into three distinct accounts, in each of which must be inserted the developments to be given to each branch, from day to day, as a useful observation or an interesting article may present itself.

We have laid down this principle: that not a day ought to pass without paying its tribute and producing some improvement; and we have shown in what ways time should be turned to account. We ought to avail ourselves of all the means in our power for preventing the loss of any portion of this treasure, the application of which it is our aim to regulate.

XIV. OF THE TWO PORTIONS OF TIME, DISTINCT IN THEIR APPLICATION, OF WHICH LIFE IS COMPOSED.

THE public capital of a state, and the capital of each individual, are naturally divided, as Smith has shown, into two classes: the one comprehends the capital, properly so called, or the capital of consumption, the distinguishing characteristic of which is, that it produces no income; and the other consists of capital employed in the production of revenue. We may also distinguish, in another point of view, two different employments of capital; the one, commanded by want, applies to things of necessity; the other is appropriated indiscriminately, according to the will of the proprietor, either to things of real utility, present, or future, or to objects of mere pleasure or frivolous luxury, or to wholly useless expenses of whim and fancy.

The life of every individual may, in like manner, be divided into two perfectly distinct parts. One is devoted to the necessity of procuring the means of subsistence; of attending to professional avocations; of performing the functions with which he is invested, and the other duties imposed by society; and lastly of satisfying the various wants of nature, as required for the preservation of man.

The second portion is left to the free disposal of each person, who can make what use of it he thinks proper.

The time employed in procuring the means of subsistence, or in the performance of a duty attached to a situation which we hold, or to our social relations, may be considered in the light of a capital destined for immediate consumption. The use which we make of it applies to things of necessity ; it is commanded by want.

The disposable portion of time, of which we can make a good or a bad use at pleasure, is lost by many, who spend it in useless, frivolous, or prejudicial pursuits. It is devoted by others to the purposes of preserving and developing their physical powers, of acquiring information, and of improving themselves. With the latter it is a kind of capital destined to produce future profit, and which also most frequently affords the purest and the most exquisite pleasure, at the very moment when we are employing it.

Since the whole of life is composed of these two distinct and separate portions, we ought to regulate their destination with such exact proportion, that the first may not encroach on any of the moments which can be appropriated to the second. We ought even to make them simul-

taneously concur, for the present and for the future, in the development of our faculties, directed toward that grand end, which is common to the whole human race.

XV. NECESSITY OF PROFITING BY CIRCUMSTANCES AND MEN.---

ADVANTAGES THAT MUST ACCRUE, IN THIS RESPECT, FROM THE PRACTICE OF KEEPING THREE SEPARATE ACCOUNTS FOR THE INSERTION OF THE OBSERVATIONS COLLECTED IN READING, IN COMPANY, IN THE EVENTS OF LIFE, AND REFLECTION.

THE talent of profiting continually by circumstances and persons is essentially connected with the art of making a good use of time. We ought to turn to our advantage and benefit, by means of *time*, considered as a disposable capital, both *circumstances* and *events*, even when they are not favourable or contrary to our wishes; and the *persons* in whose society we are, and who are capable of contributing to our instruction and improvement.

The daily journal is not sufficient to produce these results; it merely gives the assurance that the various employments of each interval of twenty-four hours shall be distributed regularly and with strict economy. Like the faithful servant charged by king Philip to repeat to him every morning, "*Remember that thou art human!*"—the Journal seems daily to address you in these

words: "Remember that you must account to yourself for the hours of which you are about to dispose."

The use of three separate subordinate journals is of the utmost importance. The three different *accounts*, contained in these journals, are designed to comprise whatever seems capable of contributing to the improvement of the three branches already specified, and thus arranging it, as it were, in three distinct houses, where it may be easily referred to and consulted, as occasion may arise. Each subject is to be treated of at an extent proportionate to its utility, but always with precision. We may derive our materials from reading, from the observations which society furnishes, from the events that pass before us, from the daily occurrences of life, from our own feelings, and the reflections to which they give rise. Experience lies not in the facts themselves, which are not remarked by inattentive and superficial men, but in the feeling of those facts, in the sensation which they excite, and in the duration of that sensation. To fix and to renew sensations, therefore, is to multiply experience.*

* Since experience does not consist in facts, but in the feeling of those facts, and the sensation which they excite, it were

XVI. OF THE PHYSICAL JOURNAL OR ACCOUNT.

THE journal opened for the physical department will embrace all that concerns health; the means of preserving it, if good; of strengthening and improving it, if weak; and of recruiting and re-establishing it, if injured and impaired. It will form in time a valuable body of practical information, and may be intituled: *Physical Report; Health and Diseases.*

The science of the preservation of health, to which our continental neighbours have given the name of *hygiene*, seems to embrace three principal conditions, or qualities, concurring in its particular object: *cleanliness*, *sobriety*, and *temperance*.—*Cleanliness* extends to whatever is used by man, to every thing about him, to his person, to his apparel, to his habitation, to all that he

to be wished that history, which ought to furnish a grand experimental and moral course of the study of the human heart, were written by men susceptible of feeling strongly themselves, and capable of powerfully affecting the feelings of others. Historians would then transfuse into the souls of their readers the sensations and impressions which were produced by the events, and which would be renewed in future generations by the living pictures of those events delineated with truth and energy, and presented in all their freshness to the eyes of posterity.

touches, to the very air that he breathes.*—*Sobriety* attends to the choice and quality of the food most favourable to health, and the proportions in which it ought to be used. Lastly, *temperance*, which comprises continence, and which is one of the connecting links between the physical and moral man, consists in repressing envy, lust, and the malignant passions, which sour the temper, disturb the intellectual and moral func-

* We learn from the narrative of Cook's voyages that this celebrated navigator, who owed part of his renown to his extraordinary skill in the art of guiding, governing, and preserving men, found means, by the establishment of judicious and severe regulations, to introduce an admirable degree of cleanliness among his crews, and with it almost all the other virtues. Cleanliness alone, converted into a habit and a want, produced among those rough seamen sobriety and temperance, and from these flowed almost all the other good moral habits. Order, docility, discipline, silence, harmony, and friendship, prevailed among them, conjointly with health of body, and the content of mind which results from all these things. Hence Cook lost but a very small number of his companions in his long and dangerous voyages.

Persons who have contracted a habit of extreme cleanliness hold in abhorrence drunkenness, gluttony, and all the brutal passions; the excesses of which at once disgust the senses and degrade man in the eye of reason. A constant attention to personal cleanliness causes us to feel a higher respect for ourselves, and induces a desire to keep our souls pure and well-regulated, like our bodies.

tions, and by a necessary consequence derange the regular order of the physical functions also.

In the *physical journal* will be entered, as they occur, the principal observations that may result from the constant study of, and thorough acquaintance with, our constitution. We shall easily ascertain by experience, and by close attention to ourselves, what things agree or disagree with us. We shall collect many facts worthy of notice respecting the differences of constitution observed in others; also concerning the variations of climate, gradual and successive, or sudden and irregular, in the different seasons, in different countries, in different days of the year, nay sometimes in different parts of the same day; and concerning the manner in which they seem to affect the physical constitution. We shall note down, on critical and important occasions, the good or ill effects of different bodily exercises, practised in moderation or to excess; of different kinds of food; of sleep more or less prolonged; of forced vigils; of extreme application of the mind; of excessive heat; of wet weather, hot and cold; and the different influences of variations of diet on the temper and character. Lastly, the relations between the physical state and the moral state, between the physical state and the intellectual

state, and between these three states, considered either separately or collectively, and in their mutual action and re-action, will furnish occasion for many particular observations, that will prove useful and instructive in practice. The art of preserving health is one of the grand means of economising time and life.

By pursuing the method here pointed out, a person will soon qualify himself to be his own physician,* and will be able to chuse with perfect confidence the diet, regimen, and exercises best adapted to his constitution. He will at least have it in his power to furnish a physician, in case of need, with positive information, which may materially tend to guide his judgment in regard to the mode of treatment proper to be pursued.†

* According to Suetonius, the Emperor Tiberius frequently observed, that he could not conceive how it happened that a man of thirty should not be capable of being his own physician.

† If each individual of the reflecting and observing class of mankind were to keep an account of the state and variations of his health at certain periods, and to collect his remarks on the causes to which the alterations of his physical constitution, and the derangement or the re-establishment of his functions, are attributable, such particular histories of the human body, considered in numerous individuals, would furnish physiology and medicine with useful materials. I presuppose that these histo-

He will collect other analogous observations, relative to methods easily practicable, and to the remedies usually employed in the most common disorders. He will practise this precept given, if I recollect rightly, by Boerhaave,—*to keep the head cool, the feet warm, and the body open.** He will be capable not only of managing himself, but also of giving occasionally advice serviceable to others. The knowledge thus acquired, according to circumstances, either in conversation with well-informed persons, or in the examination of the different facts witnessed by himself, will afford the twofold advantage of preserving him from empirics who make so many dupes and victims, and of enabling him to perform acts of beneficence. “Every man,” says Hippocrates, “should strive to acquire at least a slight tincture of medicine, which is the art that most nearly concerns

ries should be drawn up with care and fidelity; that is to say, composed of real and circumstantial facts, accurately observed, well authenticated, selected with discernment, and calculated to lead to evident consequences, and to luminous and instructive results.

* Old Parr, who attained the age of one hundred and fifty-two years, is said to have followed and inculcated these rules for the preservation of health:—“Keep your feet warm by exercise, your head cool through temperance; never eat till you are hungry, nor drink but when nature requires it.”

him, and of which he may make the most frequent use for his own benefit, or for that of others."

A military officer, who is obliged to seek resources within himself, and in the superior ranks to watch over the welfare of those under his command, to expose himself like them to all the accidents and all the diseases arising from the insalubrity, the inclemency, or frequent changes and variations of the climate and atmosphere, has more need than any other to acquire at least general notions on the subject of the art of preserving health. How would that colonel or general be adored by his men, who should be able occasionally to mitigate their sufferings, to guide their inexperience in their infirmities, to direct the proper applications or mode of treatment in cases of emergency that admit not of delay; and, in short, to compensate, by solicitude to relieve their afflictions, for the necessity which his duty imposes of appearing prodigal of their lives!

XVII. OF THE MORAL JOURNAL OR ACCOUNT.

THE *moral journal* or *account* will contain all that relates to the moral conduct, the duties to be performed, the virtues to be practised, and the means of being constantly satisfied with ourselves, and at peace with our own consciences. It should

contain a kind of *experimental course on men and society*, a real course of practical morality, and may bear this title: *Moral Report; Study of myself and Knowledge of the human heart; Review of my own life.*

To this journal we should consign the results of the observations made on our own characters, which we thus learn to study and become thoroughly acquainted with. We penetrate into the deepest recesses of our hearts, into the secrets of our propensities and inclinations, of our most hidden affections, of our defects, and of our vices; we create within ourselves a reason and a conscience, which are ever enlightened, active, and powerful. We acquire a thorough knowledge of ourselves and of men in general, a salutary command, in the first place, over our own will and passions, and, in the next, over others. We collect a number of curious and instructive particulars connected with morals. We record and preserve the really useful and practically applicable reflections, which daily occur to us; the principles and rules of conduct which we deem it right to adopt; the portraits and characters of persons whom we have thought worthy of notice; the varied, frequently delicate and almost imperceptible shades of the human heart, exhibited in

all the conditions and situations of life. We fix in writing for our benefit and instruction remarkable traits, acts of courage, disinterestedness, heroism, and virtue; acts of cowardice, knavery, pusillanimity, and treachery; interesting and remarkable anecdotes; new and ingenious ideas: in short, all that relates to characters, manners, and customs—to the knowledge of the world, an essential part of education.

By pursuing this method of observing, and faithfully recording all that is worthy of notice in your daily intercourse with your fellow-creatures, you surprise nature in the fact; you delineate persons and events, whose characteristic forms and features you preserve with care, and you easily catch the likeness. You follow the order recommended by Bacon for gradually forming an excellent treatise of practical morality. You place each truth, which is to serve as a rule of conduct, immediately after the description or sketch of the most painful disease for which it points out the remedy. Your very faults and misfortunes serve to instruct you;* the faults and misfortunes of others become ever present lessons, which, in due time and place, you do not fail to put in practice.

* Application of the *Law of Obstacles*.

You study the human heart in your own and in the hearts of your fellow-creatures ; you penetrate into all the secrets of their desires, and of your own passions ; you seize these, as it were, in their flight, and paint them to the life.

“ At that moment,” says a modern writer, “ when the soul, divided between sensation and reflection, begins to be so tranquil as to feel itself agitated, and is capable of scrutinizing all its impressions ; if man were then to commit to paper the fugitive ideas, the extraordinary reflections, the sudden illuminations, which pass before his mind ; if he were to allow his sentiments to burst forth without restraint, and to delineate themselves ; what energy ! what novelty of expressions and ideas ! and what force would be given to the eloquent lessons of morality and virtue ! ”

Morality, which, according to Locke, consists in discovering the rules and measures of the human actions which lead to happiness, and the means of putting those rules in execution,* is the practical science by way of eminence, which proposes for its end not the mere speculation and knowledge of the truth, but what is right,

* *Morality governs the will ; the law governs actions.*

and a conduct conformable with justice and wisdom.

This science, which teaches us to make a good use of all the rest, we study every moment of our lives, in all the classes of society. Here is displayed a hideous passion, the full deformity of which it is necessary for us to see in others, that we may be more strongly disposed to guard against it in ourselves: there we observe the influence of an unruly and ill-curbed propensity; the progress and the ravages of a vicious inclination, which is not watched or checked; the effects of a culpable imprudence, of an indiscreet temerity, of too great haste in speaking or acting, of irresolution of character, of a neglect of order and economy in domestic affairs. We take warning from the faults which we have remarked to avoid them, and appropriate to ourselves good actions and praiseworthy examples as guides for our own conduct.

We thus learn to correct and remodel our disposition, to subdue our passions, or to control and to give them a right direction; to distrust and to watch strictly over ourselves; to be silent unless we can speak to the purpose; and to place, as it were, vigilant sentinels over the lips, the eyes, and the heart. We accustom ourselves to study and

to appreciate men, to love them and to deserve their love, to distinguish and honour talents and virtue, to select our friends with discernment, and to observe all the decorums which it is disgraceful not to know or to forget in society. Finally, we habituate ourselves successively to the different virtues, the practice of which is the most necessary; to be just, kind, upright, faithful to our engagements, strict with ourselves, because we have a direct and personal interest in correcting our faults, indulgent and charitable towards others, who never do wrong but from mistake or misconception.* “The whole moral philosophy,” says Montaigne, “may be as well associated with a low and private station, as with a more exalted rank; every man possesses within himself the entire form of the human condition.”

A state of habitual reflection on and close observation of ourselves neutralizes the passions, and gives us the true practical philosophy. We perceive that there is something good even in what is most

* Mistakes are the causes of crimes and misery, as well in the details of ordinary life, as in the grand results of political dissensions. *The harm which men do to one another is always the result of mistake*---this is a general truth. See the particular consideration of mistakes in the *Introduction*, under the head of the *Law of the universal mixture of good and evil*.

defective, and that every thing in human concerns is compounded of good and evil.* A sound and enlightened reason discriminates and selects; it founds its judgments on a wise moderation, on entire impartiality: for the spirit of party or prejudice is blind, fanatical, unjust, and addicted to persecution; but toleration is kind and indulgent, and its indulgence is justice.

We appreciate and daily apply to our conduct those simple and common, but essential and fundamental truths, which are the epitome of morality, wisdom, and happiness: *Inter utrumque tene—Stat medio virtus—Ne quid nimis*—Virtue observes a due medium in all things.

Vivere parvo, to be content with little. To have few wants is to be truly rich.

Love to be beloved: friendship is acquired only by friendship.

Homo sum, humani nihil à me alienum puto.—I am human, and whatever concerns humanity is interesting to me.

Res est sacra miser—The unfortunate are sacred objects.

We should also impress upon our minds these two maxims:

* See the *Law of the universal mixture of good and evil*, in the *Introduction*.

Do to others as you would be done by ;
If an action be doubtful, abstain from it

We make a point of never turning a deaf ear to the inward voice of conscience, which speaks, if I may be allowed the expression, in the name of the Deity ; which seems to reveal to the soul the secret of its immortal nature and destination ; which, jointly with reason, its noble companion, renders man superior to the brute, and which determines the morality of actions. We allow it a salutary influence and a constant control over our whole conduct. Conscience and reason then govern all our passions and all our desires.

Temperance and sobriety, which are the guardians of health ; moderation, which shuns alike every kind of excess ; firmness of character, perseverance in undertakings, impartial justice, love of truth, and warm, disinterested, generous humanity, will necessarily result from this habit of a daily and continual examination of our conduct, actions, words, and thoughts. We shall frequently apply to ourselves this precept of the Delphic oracle, engraved on the front of the temple of Apollo—*Know thyself*. We shall every day make fresh progress in the knowledge of the human heart, in the study of man, and of our own

character, and in the science of happiness and virtue.

We shall learn, by experience and reflection, to heighten our own felicity by contributing to that of others; for there is nothing but exchange between men.* The more good you do, the more you will receive; the more happiness you sow around you, the more you will reap yourself.

Nature, in zeal for human amity,
Denies or damps an undivided joy.
Joy is an import, joy is an exchange;
Joy flies monopolists; it calls for two;
Rich fruit, heav'n-planted, never pluck'd by one.
Needful auxiliars are our friends, to give
To social man true relish of himself.

YOUNG'S *Night Thoughts*, Night 2.

Here is the principle of morality, of sociability, of civilization.†

* See the article on the *Law of exchanges* in the *Introduction*.

† LOVE, taken in its most extensive signification, may be considered as the principle of *morality*, which is the science of the reciprocal *relations, rights, and duties* of all men, or the *social science*, which may likewise be termed the science of virtue and happiness. The *employment of time* forms one of the most important branches of this science. We might comprise the whole moral philosophy in the single word *love*, and in the sentiment which it expresses, and deduce from this new mode of viewing morality the following subdivisions:

We shall know at the same time how to do good to others without being dependent on them, to rely upon our own resources for the assurance of our

1. *Love of a man's self*, when rightly understood and properly directed, the principle of all other legitimate and salutary species of love, and of all the actions.

2. *Love of his parents*; filial affection, piety, respect.

3. *Love of his brothers and sisters*; fraternal affection.

4. *Love of the sex* (properly directed and restrained within due bounds); an imperious instinct, implanted in man for the perpetuation of the species, and which is the bond and charm of society.

5. *Love of his wife*; conjugal affection.

6. *Love of his children*; paternal affection.

7. *Love of his friends*; friendship.

8. *Love of his country and its government*; patriotism, public spirit.

9. *Love of mankind*; humanity, enlightened philanthropy, genuine philosophy.

10. *Love of the unfortunate*; beneficence.

11. *Love of glory* (rightly understood and properly directed); heroism.

12. *Love of justice, of virtue*, of all that is good and useful.

13. *Love of the beautiful*, in the productions of nature and of the arts—the principle of taste.

14. *Love of God*; piety, admiration of, or gratitude to the supreme ruler of the universe.

Morality appears to consist essentially of *love*, applied to the beings which resemble us, or which are of the same species as ourselves, and to the beings, or things which are useful to us. *Love* is the soul of the universe, the principle of morality and

future happiness, and to consider nothing but the produce of our labour as our own.

The more we study mankind in general, and the complicated machinery of social organisation, the more scrupulously attentive we shall be to shun these three classes, which are the bane of communities: *gamblers*, or persons who make gaming their principal means of subsistence; *mendicants*, and all who live by alms, or by favours, not acquired by legitimate means, by real titles, by talents and virtues; and *thieves*, who exercise their ingenuity in the violation of the

virtue. From this magic word, *love*, from the sentiment which it expresses, flows all that is good and fair. *Virtue* consists in the first place in quitting the narrow circle of self, of the purely personal feeling. Love alone lifts a man above himself, and urges him to transfer part of the love of self, part of his own existence, to another, or to several other individuals. He ceases to prefer himself to the universe; he feels that which does not touch him immediately; he has opened his heart to *love*; and kind *humanity*, the mother of all the virtues, which embraces them all, and which is itself no other than *love* in its most extensive acceptation, introduces into that heart, divested of the obdurate bark of selfishness, all the other tender, noble, and generous affections. These affections, which shoot, expand, and bear fruit, then produce the *habits* and *actions* which constitute *practical morality*, and comprehend all the subdivisions which can be assigned to *morality*, *general* and *particular*, *natural* and *social*, *theoretical* and *practical*, *public* and *private*.

right of property, the primary and fundamental basis of social order. These three classes of persons live at the expense of society, without making amends for the mischief they do it, by any benefit whatever. The man who respects himself disdains to derive his means of subsistence, and the conveniencies and luxuries which he is desirous of procuring, from any other source than his own labour; he wishes to pay his tribute to society, in compensation for the benefits he receives from it. Idleness, selfishness, immorality, are not admitted into his plan of life; he alone knows how to appreciate and to obtain true glory, which, in whatever situation we may be, consists solely in the good we do to our fellow-creatures. The greater and more durable that good the more brilliant and solid the glory. Glory is nothing but the public esteem prolonged for ages.

XVIII. OF THREE PARTICULAR ACCOUNTS, SUPPLEMENTARY TO
THE MORAL ACCOUNT, *vis.*

1. *The Economical Account;*
2. *The Historical Account;*
3. *The Necrological Account.*

It is advisable to keep three particular accounts by way of supplement to the moral account; the first, to contain a statement of expenses for every

week and every month, and of the various purposes to which money has been applied; the *second*, a summary, in chronological order, of the principal political events, as they occur; the *third*, the characters of those with whom we have been connected, or who have held important posts in society, as they successively quit the theatre of life.

We shall proceed to the consideration of each of these three supplementary accotnts, for the purpose of explaining its particular object and utility: but we must previously insist on one essential observation, which is calculated to obviate many objections. We here propose nothing new or extraordinary, nothing but what every man of any education already does, more or less exactly, for his own convenience. We merely furnish the means of giving regularity to what has hitherto been done mechanically and without system; recommending that what is generally written on scraps of paper or loose leaves, which are liable to be put out of the way, mislaid, and lost, be entered methodically in books suitably arranged. How many persons are in the habit of committing to writing, either in the form of memorandums for themselves, or in letters to their friends, all that we advise them to insert in a regular journal,

to which they can refer whenever they please! We propose to apply to daily life some of the practices followed by commercial houses and in the army.

1. *Of the Economical Account.*

The *economical account*, or account of receipts and expenses, is not less essential than the preceding: it is connected with the moral journal, but ought to be kept separately, and with great care.

The habit of thus keeping an account of our pecuniary situation, and striking a balance of our receipts and expenditure, either weekly or monthly, for which purpose we should not have occasion to write more than a page every fortnight or three weeks, constitutes a real practical course of domestic economy, which is useful to persons in every class of society. It is a method productive of many good results, tending to check the improper application of money, and consequently to ensure the means of comfortable subsistence and tranquillity.* By means of this practice, we

* How many men, rather from imprudence than criminality, how many fathers of families, in many respects worthy of esteem, have squandered their fortunes, and perhaps even put a period to their lives rather than survive their dishonour, merely

impose, as it were, upon ourselves particular sumptuary laws or regulations, according to which we proportion our daily and annual expenditure to our income, by applying our general principle: *All things are relative*. We acquire the salutary habit of avoiding at the same time avarice and profusion, of never running into debt, or incurring embarrassment in our domestic affairs, and of constantly keeping our receipts and disbursements in an exact proportion, and in a due equilibrium.

Among the Romans, all fathers of families were obliged to keep an account, in which they regularly entered their receipts and expenses, their active and passive debts; and, under certain circumstances, these accounts were produced as evidence in the courts of justice.* The same custom, familiar to the illustrious Sully from his early youth, trained that great minister, who, by the admirable and unprecedented order which he introduced into the administration of the

for want of keeping such an *economical account*. This habit of itself would necessarily have apprised them of the gradual derangement of their affairs; it would at least have stopped them on the brink of the precipice, and prevented their total ruin.

* See *Cicero's Letters to Atticus*, Book 1.

French finances, contributed so powerfully to the glory of his sovereign, and the prosperity of his country.

2. *Of the Historical Account.*

A concise statement of the principal historical events must necessarily find a place in the divisions of our grand memorial, if it shall be as complete as it could be wished. No well-informed person is indifferent to the public events, which are likely to have an influence at once on his country, on the age in which he lives, and on his own situation. It behoves him, moreover, for his private use, information, and satisfaction, to keep a journal, containing in chronological order, a summary of the principal facts composing the history of states and eminent contemporaries. It is useful to be thoroughly acquainted with this history, and to have classed the general results successively in our minds, that we may have a more comprehensive view of the whole.

This account, however, seems more especially, perhaps exclusively, suited to those who hold public offices, civil or military, in whom a positive duty and a direct personal interest excite a wish to preserve some memorial of the remarkable

events, political and military, in which they have perhaps co-operated.

3. *Of the Necrological Account.*

The idea of death, which every object and every moment are incessantly presenting to our eyes and our minds, must not be omitted in our tablets. It is even advisable to assign to it a particular account, the object of which is moral and philosophical; for to live well we must learn to die. In the military profession, in civil offices, in every possible situation, a man cannot be happy unless he can constantly preserve a serenity and composure which the approach of death itself is incapable of disturbing. We shall thus form by degrees a kind of necrological gallery, in which will be deposited the names, characters, and memoirs, of deceased persons whom we have known, and who have performed in our time important parts in public affairs. Their images, frequently present to our view, will familiarize us with that supreme law, which calls us all sooner or later to the same grave. The idea of death, associated with the cheering and sublime conviction of the immortality of the soul and the existence of God inspires man with fortitude, instructive, on the different branches of the

purifies the soul, incites to virtue, and acts as a powerful auxiliary to morality, by furnishing a point of support, and holding forth an aim.

It should not be forgotten, that these accounts or journals, supplementary to the analytical journal, which may, at first sight, appear likely to occupy a great deal of time, tend, on the contrary, to save it, and require but about half an hour every two or three days to be kept posted up.

XIX. OF THE INTELLECTUAL JOURNAL OR ACCOUNT DEVOTED
TO THE IMPROVEMENT OF THE MIND.

THE *Intellectual Journal* comprises the results of the observations made on the judgment, the imagination, the understanding, the memory, in short, on all the intellectual faculties. We study to become thoroughly acquainted with them with a view to develop, cultivate, and improve them. We extend our remarks on these subjects to all those with whom we are in habitual intercourse. We record the substance of all conversations and discussions of any interest at which we have been present. We suffer no productive fact, no luminous and fertile idea to escape us : whatever appears interesting and useful is carefully preserved. We thus form in time a valuable and multifarious collection of detached articles, elementary and

sciences, on which we have occasion to hear the arguments of enlightened men, or to read good works ourselves. This collection is regularly arranged, with references to corresponding articles.

The sciences, all of which began to exist before they were distinguished by particular denominations, and divided into different classes, are nothing but collections of facts, observations, experiments, and results. The man who has contracted the beneficial habit of rendering every thing subservient to his improvement, of adding every day to his stock of facts and observations, and who is always eager after information, ought to profit even by the conversations and discussions which he hears in companies in which he happens to be. He recapitulates every night to himself such as seem deserving of his attention. He analyses and inserts the substance of them in his journal, after digesting and maturing them by meditation: for we retain better what we have fixed in our minds by reflection, than what we have learned merely by the aid of the memory. In this manner we exercise the mind, form correct ideas, and learn to think.

An index formed upon Locke's plan,* and

* See the explanation of Locke's method in Note I. subjoined to this Essay.

placed at the end of the journal, enables us to bring together all the detached articles on the same subject, and serves to form a whole on one or more sciences, of which we thus acquire a general notion. The subject of each article being expressed in a single word in the margin,* it may be easily referred to when wanted. The results in a few years present a mass of clear and positive information on several branches of science, collected without difficulty, trouble, or fatigue, in the moments of relaxation, spent in company and lost in general by other persons. It may here be observed, that in familiar conversations scientific men adapt themselves to the level of ordinary capacities, and then illustrate the sciences in a manner that renders them more easy of comprehension.

It is not my intention to assert that by this method alone we may acquire a thorough knowledge of the sciences, but we may gain from it a slight tincture of them successively; we shall be led to view them under different aspects; we shall be enabled to compare the different doc-

* The choice of the leading word written in the margin to each article is of great importance for accuracy, and for the facility of reference to similar and corresponding articles.

trines of those who cultivate them ; we shall form our judgment, our memory, and our style.

This method is particularly useful for military men, or travellers, whose wandering life prevents them from pursuing a regular and methodical course of study, and allows them scarcely any other means of acquiring information ; but who see many different countries, who pass the greatest part of their time in the society of other men, who may be said to have many different persons, nations, events, phenomena, manners, laws, and customs, successively passing in review before them.

There is not an individual, however shallow and ignorant, who may not be superior to another in some point, or useful to him in some way or other, and consequently from whom he may not derive more or less benefit. On this observation is founded the art of employing men, and that of questioning them in society.

If you happen to be in the company of a lawyer, turn the conversation to the courts, their organisation, their forms, the consequent advantages or disadvantages, and the abuses which have crept into the administration of justice. You will obtain useful information of a common attorney, and still more of an able lawyer and an enlightened magistrate.

If you are with a merchant, a banker, or a mere shopkeeper, you direct your enquiries to the nature of his speculations, and to the interests of the class to which he belongs : you acquire a notion of commercial intercourse, considered in detail in society, or in trade, viewed on a large scale, in its connection with the prosperity of a country, and in the communications which it establishes between different and distant nations.

A military man, if you have the art to question him concerning that branch of the service with which he is familiar, will explain to you the internal mechanism of a corps, will make you a spectator, as it were, of its evolutions and manœuvres, will qualify you to judge of the state of the discipline, the intelligence and the administration of the troops. He will furnish you with the information necessary to enable you to decide how the different kinds of troops, the light infantry, the infantry of the line, the cavalry, and the artillery, may be most advantageously employed according to circumstance and local situation. He will give you interesting and instructive descriptions of the battles at which he has been present, and will have it in his power to point out the best works to be consulted on the art of war. It will frequently happen, that objects which appear the most

remote from the ordinary sphere of your occupations and your thoughts will present to your mind observations or processes, which may be beneficially applied to the science or pursuit that especially engages your attention.

With an officer of engineers you will talk of encampments and fortifications: with a seaman of the elements that compose a fleet, of the sciences connected with his profession, of naval tactics, and navigation.

The traveller will transport you into the countries which he has visited; the ambassador and diplomatist will introduce you into the secrets of the cabinets of kings, of the intrigues and interests of courts, and of the respective strength and power of different states.

With a divine, you will insensibly turn the conversation to his religion; you will inform yourself of its object and doctrines; you will study the spirit of the ministers who profess it; and, in general, you will find in that class many worthy and enlightened men. But even the ignorant and the shallow ecclesiastic will furnish you with the means of increasing your knowledge. We ought, according to Bacon, to listen to, nay even sometimes to seek the company of superstitious persons, were it only for the purpose of closely ob-

serving superstition, a very common disease, which is incurable, from which we cannot well preserve ourselves unless we are acquainted with it, with which we cannot be acquainted unless we study it, and which we cannot study, without closely watching those who are infected with it : only we approach them with the same kind of caution and reserve as we would persons attacked by disorders that sometimes prove contagious.

You will profit by the experience of the aged, and by the polished manners and delicate tact of the man of the world. Artists, scholars, and the fair sex, will give you at one and the same time a relish for the beautiful, and the rules necessary for the formation and direction of taste. The chemist, the naturalist, the astronomer, the physician, the botanist, the farmer, will furnish you with elementary notions of the science which each of them has more particularly studied. The mere artisan and workman will initiate you into those mechanical details, which ought neither to be neglected nor despised. The most trivial objects are capable of acquiring a degree of utility in a comprehensive mind, which can properly arrange all that it knows. Every individual has lived in some sphere or other, traversed a more or less extensive circle of ideas and observations,

and can impart more or less information to him who possesses the art of extracting it.

Learn then to turn to your advantage all whom you meet with, that you may not lose your time, but be continually adding to your stock of knowledge. *The employment of time*, and *the employment of persons*, are jointly the two elements of the art of governing ourselves and others.

The eloquent Bossuet exhibits to us this maxim, as practised by the great Condé. "With what vivacity," exclaims the orator,* "did he appreciate, in a moment, times, places, persons, and not only their interests and their talents, but also their humours and their caprices; nothing escaped his penetration. With that prodigious comprehension of the general plan, and of all the details of military operations, he was incessantly attentive to every occurrence: he extracted from a deserter, a runaway, a prisoner, a passenger, whatever he chose to say, whatever he wished to conceal, all that he knew, and, in some measure, all that he did not know, so correct was he in his conclusions.... But it was not war alone that shed a glory over this prince: his great genius embraced every thing—the ancient as well as the

* See Bossuet's *Funeral Oration for the Prince of Condé*.

modern ; history, philosophy, the most sublime theology, and the arts and sciences. There was not a book but he had read, not an eminent man, either as a profound thinker, or as an excellent writer, but he had entertained : none quitted him without adding to their knowledge, or correcting their ideas, either by his shrewd questions, or by his judicious reflections. His conversation was therefore delightful, because he knew how to adapt it to the talents of each ; not merely talking with military men of their campaigns, with courtiers of their interests, with politicians of their negociations, but also with inquisitive travellers of their observations and discoveries, either in nature, government, or commerce ; with the artisan of his inventions ; and, lastly, with men of science, concerning the most extraordinary things they had met with in their respective pursuits."

The Russian prince Potemkin, according to the character given of him to the author by an ambassador who had been intimately acquainted with him, had acquired, by the same means, an extraordinary fund of information, though he had learned nothing from books. He had conversed with able men in all professions, and in all the arts and sciences. None ever understood better the art of appropriating to himself the knowledge

of others, and converting it into his private property. He would have astonished alike in conversation the scholar and the artist, the artisan and the divine. His knowledge was not profound; the kind of life which he had led prevented him from penetrating deeply into any thing; but it was very extensive and multifarious. How much better informed he must be who has drawn with discernment all his knowledge from those two equally abundant sources, reading and society; or from the extracts made by himself from the most esteemed works, and from the instructive conversations, the substance of which he has noted down!

No one, says the author of a biographical account of Locke, ever understood better than that illustrious philosopher the art of suiting himself to every kind of capacity, which is perhaps one of the surest signs of a great genius. In conversation he had a particular knack of making people talk on the subjects with which they were best acquainted. With a gardener he would talk of gardening, with a jeweller of precious stones, with a chemist of chemistry. "In this manner," said he, "I please all these persons, who, in general, cannot speak to the purpose of any thing else. Finding that I interest

myself in their occupations, they are delighted to display their skill, while I, for my part, profit by their conversation."

By means of this practice, Locke had actually acquired an extraordinary knowledge of all the arts, and he extended it every day. He was accustomed to say, that a knowledge of the arts contains more genuine philosophy than all those brilliant and learned hypotheses, which, having no connection with the nature of things, answer in reality no other purpose than to waste the time of the inventors, as well as of those who strive to understand them. By the different questions which he put to people of all professions he found out the secret of their art, of which they were themselves ignorant, and frequently suggested new and useful hints, which they turned to good account.

You have ensured the beneficial employment of your time by a judicious application of all your moments to useful objects; you appreciate also the advantages accruing from the due selection and employment of men; you avoid those by whom you have less to gain than to lose, and seek the society of such whose company and conversation are always profitable.

This method, which we have recommended

as particularly useful to the soldier and the traveller, is equally advantageous to the studious man, who, confined within a narrow circle, and deriving the materials for his journal from reading, from reflection, from his recollections, and not from society, likewise reaps every day an abundant harvest, and carefully classes the extracts or analyses of the good works which he has read and meditated upon, or reviews the successive parts of the sciences which he has studied. In this manner, a person may go through in a few hours the substance of what he has read and observed in the space of several months.*

If we propose to embrace several sciences, we can have as many separate journals as we have different kinds of works to extract from, or sciences, the scattered notions of which we are desirous of collecting, in order to combine them into one whole. The more we increase our stock of knowledge, by this method, the more strongly we feel urged still farther to augment it, and the more we take delight in cultivating our minds, and in the pure pleasures attached to successful study.

* See note 2, subjoined to this Essay, containing an account of a particular method of reading, studying, and analysing historical works.

Order and clearness, *lucidus ordo*, should preside over all our studies. A suitable division of time, a certain and uniform method, chosen with discernment and followed with perseverance; an object of real and practical utility, whenever we apply ourselves to any science; variety in our pursuits, to afford recreation to the mind; a judicious and alternate mixture of occupation and rest, of bodily and intellectual exercise, of reading and instructive conversation; the salutary practice of concentrating our powers upon a single point, instead of spreading them, and thus losing in depth and solidity what we seem to gain in surface and extent; the advantage which thence accrues of completely mastering every subject that we take up, and of successively resolving all the most difficult and the most interesting questions, by means of doubt, reflection, observation, and experience; such are some of the effects of the proposed method. It tends more particularly to strengthen the mind, and to impart to it a useful habit of observation and meditation.

XX. OF THREE PARTICULAR JOURNALS AUXILIARY TO THE
GENERAL INTELLECTUAL JOURNAL, viz.

1. *Obligatory Occupations;*
2. *Optional Occupations;*
3. *Bibliographic Account.*

THE *general intellectual journal*, the utility of which we have been explaining, seems to admit of three particular auxiliary journals, each of which must concur in the same end, that of aiding and fortifying the understanding, by frequent exercises relative to the different pursuits to which duty or inclination urges us to apply.

1. *Of Obligatory Occupations.*

Obligatory occupations, or such as are imposed by the situation we hold in society, deserve a particular account, which enables us to follow their order and progression, and to give greater regularity and rapidity to their course. Occupations of this kind are indeed sometimes arduous and disagreeable, especially to those whom society, by the misemployment of their talents, dooms to a continual struggle between their *destination* and their *destiny*, between that for which they were designed by nature, and that which they are compelled to be by their condition. It behoves us,

nevertheless, to strive incessantly to improve ourselves in this particular, that we may perform our duty the better; that we may render it lighter and more pleasant; that we may be at the same time better satisfied with ourselves, more worthy of the esteem of others, and more useful to our country. Daily experience, none of the lessons of which is lost, because we carefully collect the results, and an uninterrupted apprenticeship to the different parts of the principal branch of our functions, quickly lead to such a degree of cleverness as renders us superior, or at least equal, to all those who are successfully pursuing the same career in society.

2. *Of Optional Occupations.*

Optional occupations, or such as we follow from natural taste and inclination, may likewise have a distinct account opened for them. We have already hinted at the object and advantages of this particular account, by recommending, when treating of the general intellectual account, the keeping of a journal or book of extracts, for the different branches of our favourite and habitual studies. By these means we pursue them more connectedly, more methodically, and more successfully; we seize their coherence and conca-

tenation ; we establish mutual relations between them ; and thus make them contribute to the advancement of each other. By combining and arranging the *details* of which each is composed, we form a satisfactory and useful *whole*. We have here the application of our *general law of division and re-union*, considered as two generating means, which must be combined before they can be productive. We rise from what we know to what we do not know ; agreeably to another general law, that of *gradation*, which fixes the natural and necessary course of the human mind. We throw a light upon our path, that we may continue to advance with a sure step. We are never at a loss for points of support, since we raise the new knowledge we acquire upon that which we have previously procured. With a prudent circumspection, not incompatible with a happy boldness, we proceed toward a determinate object, the cultivation and the improvement of our intellectual faculties.

3. *Of the Bibliographic Account.*

This third auxiliary account has been kept with benefit by several young military officers and travellers, who have found it to be at once a convenient, and agreeable medium of inform-

ation. It consists in entering the titles of all works of any importance, both new editions of antient, and modern books, as they appear, classed under distinct heads, according to their subjects, or the science to which they belong. We are informed of their publication, either by the newspapers and the literary journals, or by conversing with intelligent persons, who may have read and formed their opinion of them. We thus compose an analytical catalogue of a certain number of select works, in the different branches of the sciences, and especially in those to which, from obligation or choice, we chiefly apply ourselves. We have, in time, a kind of economical and portable library; and by recurring to the books registered in it we may consult all the observations made by the ablest men on the subjects to which we have occasion to direct our studies. In the book devoted to this purpose, a greater or less number of pages must be allowed to each science, according to the degree of attention that we propose, or are obliged to bestow on it.

Each of the pages of this account is divided into five columns, as follows: 1. a column for the running numbers, which may be very narrow, as it is to contain no more than two or three figures; 2. the titles of the works, and the addresses of the

publishers; 3. the name and country of the authors; 4. the time of publication, or dates of the publications; 5. brief remarks on each work, consisting either of our own opinions, or those of persons on whose judgment we can rely. The last column should be left blank till we have been able to procure the information necessary for filling it to our satisfaction.*

It is impossible to conceive the assistance to be derived by the mind from this very simple and easy method, which takes up at most but a quarter of an hour every week, and enables us to review monthly, or yearly, the most remarkable productions of the understanding among the different nations of the world. The titles of the works, furnishing the most concise indication of their nature, show correctly what sciences are most flourishing in any particular country; which appear to be neglected and abandoned, or remain

* For the more methodical classification of the productions of the human mind in our *Bibliographic Account*, the three following grand divisions may be adopted: 1. *Physical and natural, or specially descriptive sciences*; 2. *Metaphysical, moral, and political, or specially rational sciences*; 3. *Literary and mathematical sciences, and the various arts, physics, mathematical, mechanical, liberal or fine arts, or specially instrumental sciences, such as furnish all the others with instruments.*

barren and uncultivated; and what important discoveries have been made in the arts and sciences interesting to mankind. We shall find in time, in our *Bibliographic Account*, a very curious and instructive part of the history of our own time, and that of the human mind and its labours, or an epitome of the literary and scientific history of the age.

XXI. OF CERTAIN PARTICULAR ACCOUNTS ATTACHED TO THE, ANALYTICAL JOURNAL, AND NOT BELONGING EXCLUSIVELY TO ANY OF THE THREE JOURNALS, PHYSICAL, MORAL, AND INTELLECTUAL, viz.

1. *Use and Construction of the Daily Memorial, properly so called;*
2. *Special Account for the Employment of Time, considered in general;*
3. *Various Notes and Memorandums.*

1. The *daily memorial*, or *thermometer*, the use of which was recommended in the ninth chapter, and all the developments of which are embraced in the different general and particular accounts that have been since described, ought to be very simply constructed, that the task of keeping it may be as easy and agreeable as it is useful and beneficial. It may be composed of only three articles, each requiring one or two lines at most, for every twenty-four hours. It will express in a

few words the number of hours allotted to each of the three great divisions, and the daily physical, moral, and intellectual temperature of the person to whom it relates. It will faithfully exhibit his real situation, either progressive, stationary, or retrograde, in regard to those three points. By comparing these successive, but connected statements, we shall easily judge whether there is a deviation, stagnation, or progression; for the daily examination, summed up in writing, as a foundation for this judgment, will serve for a *point of support*. We shall always be in time to stop, by accurate and continuous observations, the necessary results of the constant practice of our method, any deviation, which, if not watched and checked, would in the end destroy the health of the body, of the mind, and of the soul. We shall give frequent concussions to the habits of life, physical, moral, and intellectual, which will prevent us from falling into stagnation and sluggishness. Motion and activity, for keeping all the faculties in play, in equilibrium, and in harmony, are principles of strength and health. Lastly, we shall be in constant readiness to promote the state of progression or melioration.

2. A distinct *account* ought to be opened for the *employment of time*, considered as a real and

highly important science, and as the ground-work of happiness. Here will be successively entered the observations suggested by our own experience on the daily application, the comparative advantages and disadvantages, and the improvement of the different parts or conditions composing the method of employing time, which we have chosen for the rule of our lives.

3. The *miscellaneous account*, for memorandums of various particulars that we have occasion to commit to writing, will form a sort of *agenda*, similar to those already kept by most persons who have much business to transact, for the assistance of their memory. These consist of memorandums relative to professional matters, visits, engagements of every kind, to their past speculations and their future plans. By this expedient they are enabled the better to regulate the employment of their days, to do more, and that better, in a given time. All methods, when thoroughly understood, must have the twofold effect of abridging and meliorating.

This miscellaneous account may also include whatever concerns a person's family, his children, if he has any, his parents, friends and relations, and generally such memorandums as he may wish to refer to occasionally, and the plans and recol-

lections which it may be either useful or agreeable to preserve in writing.*

XXII. SECOND AND LAST AUXILIARY CONDITION, SERVING AS A COMPLEMENT TO THE PROPOSED METHOD FOR REGULATING THE USEFUL EMPLOYMENT OF TIME.—CHOICE OF A SINCERE AND SEVERE FRIEND, TO WHOM TO SUBMIT THE STATEMENT OF OUR PHYSICAL, MORAL, AND INTELLECTUAL SITUATION, EVERY THREE OR SIX MONTHS, OR ONLY ONCE A-YEAR.

A second and last auxiliary condition promises great advantages for the success of our method;

* It must not be forgotten that the use of leading words, references to articles which have a correspondence with one another, an analytical table and alphabetical index, drawn up on the plan of the ingenious Locke, and placed at the end of each journal, will render it easy to turn to, and read in succession all the passages in any of these accounts, relating to one subject, which are thus connected together, and serve to illustrate each other.

The general division of the journal into several different parts, each having its specific destination, admits of giving to these various accounts an extent proportionate to their respective degrees of importance, and to the greater or less abundance of the materials which may offer themselves to the mind, without our being ever liable to confound them. It may not be amiss to repeat, that half an hour, at most, every day, will be sufficient for keeping these different accounts posted up, since there are many in which there will be no occasion to make entries, but at longer or shorter intervals. We have already treated of the advantages likely to result from them.

for the more we are convinced of its excellence and utility, the more we should strive to ensure its being invariably followed.

The daily journal, the three general accounts, and the other particular accounts, are the results either of the review of each day, or of observations collected at different periods. They furnish the means of judging whether we advance in the career which we purpose to pursue, whether we stand still, or whether we recede: in short, whether we are in a progressive, stationary, or retrograde state. The *retrograde state* is fraught with disadvantages and calamities; the health declines, the heart becomes depraved, and the understanding obscured. The *stationary state* exhibits the image of stagnant water, which at length becomes putrid and unwholesome. The *progressive state*, by expanding and improving all the faculties, is the only one capable of meliorating individuals, and giving prosperity to nations.

A person who travels with a view to acquire information will not be satisfied with driving post haste through provinces and cities, taking a glance at the country, and snatching a view as he passes of the monuments of the arts, the prodigies of industry, the useful establishments, and the objects of curiosity. He will purposely make fre-

quent pauses. He will impress upon his mind what he has seen and remarked during his journey; he will make inquiries, and enrich himself with such observations and collections as he has opportunities of amassing. In like manner, in the journey of life, we ought to pause at certain distances, take a retrospective survey of the space which we have travelled, to ask ourselves whence we come and what we have done; where we are, and how we can judge of our present situation; whether the contemplation of ourselves seems to excite in the soul feelings of discontent or satisfaction, grief or joy; lastly, whither we are going, to what goal we are proceeding, according to our condition, duty, or interest, and which is the surest and most agreeable road to it.

But the fickleness and indolence natural to the human mind must necessarily oppose the execution of our plan. They would not permit us to hope that this plan of laying all our days under contribution, and extracting, as it were, from them their most substantial part, could be pursued with invariable perseverance, even though supported by firm resolution. We should, moreover, be careless in drawing up the proposed summary of the employment of our time, if it were destined merely for our own eye; and it is far-

ther to be remarked that no person can form so impartial an estimate of himself as a friend would do : man is naturally lynx-eyed, in regard to the faults of others, but blind to his own.

Chuse then an upright, enlightened, sincere friend, to be another self, near enough to your own age to be no stranger to your tastes, your propensities, and your passions, yet sufficiently advanced in life to have some experience of men and things; possessing a reason so mature, a mind so cultivated, a heart so noble and generous, as to inspire you with that unreserved confidence, founded on mutual esteem, which is the necessary basis of friendship. Into the bosom of such a friend you may freely pour forth your soul : you will not be afraid to expose it to him without disguise, to reveal to him its inmost recesses, and every weakness that lurks within them.

Let us add a few other traits by which you may distinguish him whom you ought to select for your model, counsellor, and guide, unless indeed an affectionate, virtuous, and enlightened mother, renders your search unnecessary, and supplies his place : for there is no adequate substitute for the heart of a mother. You will seek and love in him the man, who, with an excellent disposition, combines all the moral qualities of a

strong mind, a sound and delicate judgment, solid and instructive conversation, new and luminous ideas, and true dignity of soul. In his society you are sure to be a gainer; you will feel that he contributes to enlighten your mind, and to purify your heart. You never leave him without being better pleased with yourself, more disposed to the love of mankind and of virtue, and more clear respecting your real destination and the duties which you are called to perform in society.

In this person you will also appreciate the rare merit and talent of knowing how to doubt; of employing, if requisite, several successive years in the thorough examination of an important truth, in the solution of a difficult question, in the *search after causes*—a creative and fertile principle in all the sciences. You will distinguish in him an urgent desire to seek and find for himself men of strong and enlightened minds, capable of assisting him with their talents. You will imitate that obliging complaisance which cheerfully descends to the level of the capacities of the ignorant and inexperienced, especially of young persons eager after information, and that constant and indefatigable patience which frequently devotes a whole life to the composition of a good work, that is, a work beneficial to mankind, and

calculated to advance a science which the author has profoundly studied.

To a person whose character corresponds with this description, or to him, who, by a more or less complete combination of the qualities here specified, seems to prefer the strongest claim to your esteem, submit then, every three or six months, or only once a-year, a faithful summary of your personal state, with reference to the three grand points.

Every three or six months you will read over the observations you have made ; you will examine and try your actions, and ascertain your progress of every kind and your present state, as compared with that exhibited in the preceding report three or six months before. You will lay before your friend these summaries of the employment of your life ; they will furnish him with the text to the salutary advice, in offering which he fulfils a duty towards you enjoined by confidence and friendship. You have discovered in him a certain superiority of understanding and moral qualities ; and you make him the confidant, witness, and judge, of your thoughts and actions, that you may receive in exchange his counsel and instruction.

**XXIII. GENERAL OBSERVATION ON THE MODE OF DIGESTING
THE DAILY JOURNAL, THE PARTICULAR ACCOUNTS, AND THE
ANALYTICAL STATEMENTS OF A PERSON'S INDIVIDUAL SITUA-
TION, TO BE DRAWN UP EVERY SIX MONTHS, OR EVERY YEAR.**

IN order to possess the greater freedom in keeping the daily journal, the three general accounts, and the analytical statements of his physical, moral, and intellectual situation, let the writer always speak of himself in the third person and under a fictitious name, which may easily be changed at pleasure. He is thus not cramped by any consideration of self-love, human respect, false modesty, vanity, or pride. He pens a faithful history of his life, without fear of indiscreet confidants or malicious critics. He speaks of others also, whether in terms of praise or censure, under feigned names ; and in this manner forms, without restraint or scruple, a collection of actions, portraits, observations, and characteristic and instructive anecdotes, which cannot hurt any one's feelings ; for he does not make it his business to delineate this or that individual, merely for the purpose of gratifying a frivolous malignity. His object is the same that Theophrastus, La Bruyère, and many other philosophic moralists, had in view in their works, namely, the knowledge

of man. He wishes to study, to know, and then to represent under every form for his own instruction man in general—a real Proteus, who metamorphoses himself in a thousand ways, and assumes a thousand shapes for the purpose of eluding the most penetrating eye—a strange compound, the varied hues of which cannot be seized and fixed but by degrees, and after long observation of different persons in all classes of society, and in every condition of life.

XXIV. OBJECTIONS FORESEEN AND REFUTED. INCONVENIENCIES TO BE AVOIDED IN THE KEEPING OF THE DIFFERENT ACCOUNTS.

It now behoves us to seek and to examine various objections, some of which have already been urged against the proposed method, by persons to whom it has been communicated. We shall repeat them here in all their force, that we may the better appreciate their validity. In this discussion we shall be obliged to recur to some of the preceding details, for the purpose of bringing into one view the objections and the observations destined to refute them, with the general theory to which both relate, and the results that we have ascribed to this method.

First Objection.

The first objection which naturally occurs is, "the prodigious difficulty and almost absolute impossibility of following the proposed plan in the state of society in which we live."—"What you require," say the objectors on this ground, "would no doubt be very fine, but it is not practicable: for who would thus spend all his life in the compilation of journals? Your method might do very well for angels, but is not suitable for human creatures: the *results* which you promise yourself are *chimerical, imaginary, impossible of attainment.*"

Answer.

If the principles laid down in this work are acknowledged to be good and beneficial; if happiness is really the *end* of education and of life; if the essential elements of happiness are without doubt *health, virtue, and knowledge*; if time is the *grand instrument* for procuring these; if the good or bad use of this instrument constitutes the happiness or misery of individuals and of society; if the method here developed for regulating the good use of time, the chief mean of being happy presents a pleasing, but, according to some per-

sons, an impracticable theory: is it not of the utmost interest to youth, to whom it is more particularly addressed, to prove that this method is, on the contrary, easy of execution? If those who condemn it solely as impracticable approve its object, and acknowledge the truth of the principles on which it rests, but are alarmed at the obligations, apparently numerous and arduous, which it enjoins, what will they have to reply, when it is demonstrated to them that this method is less theoretical than practical, and that it is susceptible of being applied by persons of ordinary capacity in almost all the situations of life? We may even add, that it has been successfully practised by persons of different ages, but more particularly by young men, chiefly belonging to the army; though a military life, from being more unsettled and dependent, seems at first sight to be less favourable than any other to the execution of the plan described.

What is, in fact, this method, reduced to its simplest and most concise expression? It consists of *three principal* and *two auxiliary conditions*.

1. Never to speak or act without asking ourselves this question: "*What good and useful end will it answer?*"—without having an object." This preservative practice, which should be applied in preference to important actions, may nevertheless

be easily extended to all proceedings; but the will must first be there. The will imparts strength to the weakest. The power of the will may be said to be incalculable. How many signal and solemn evidences might be adduced in support of this truth!

2. "To inquire, after each interval of twenty-four hours, in the morning, in the evening, or any other moment of the day that is at our disposal, the use we have made, whether good or bad, of that portion of life"—to contract in this manner the habit of constituting reason the judge of all our words and actions, and to avoid those faults into which people are too frequently led by thoughtlessness and inconsistency.—In the present state of society every individual may have the free disposal of the moments that immediately precede retiring to rest, and that follow his rising. If we were to accustom ourselves to devote these brief intervals, which are most commonly wasted, to a rapid examination of whatever interesting and useful we have said or done, seen or heard, learned or observed, we should have an employment not only very instructive and beneficial, but also very agreeable, for that portion of time which at present has no destination prescribed by necessity.

3. The *third condition* has appeared more

terrific than even the other two—"To keep a journal containing an analytical summary of the employment of the day, under the three heads, physical, moral, and intellectual."—This mighty effort, nevertheless, consists merely in employing a few minutes, and in writing a few lines, for the purpose of arranging and committing to paper the result of the examination mentioned above. This examination is confined to three principal points: the imagination and observation are fixed, and cannot ramble. Is then such a custom, which soon becomes familiar by practice, more troublesome than that of winding up one's watch every night, and looking at it many times in the day, of consulting the thermometer, or even of dressing and undressing every twenty-four hours. These things are done without being thought of, some by certain persons only, others by all without exception. I assert, from experience, that it is not more difficult for any one who is solicitous to contract the habit, to commit to writing every day the substance of such observations as he judges important for his health, for his moral state, and for his instruction.

Such are the first three conditions or rules of the method, to which may be added the two following, to render it more complete:—

4. The *fourth condition* relative to the keeping of *three journals or accounts* for the three departments above specified is but an extension of the daily journal. In these a person writes at leisure moments all that he thinks it useful to preserve concerning the three elements of man, with which the three principal means of happiness bestowed on him by nature are connected.

I am far from desiring that volumes should be written, and from imposing any toilsome or extraordinary task. I merely wish that to be done regularly, methodically, and with immense benefit, which many persons already do more or less punctually, but in a desultory manner, and without utility. How many are there* who daily make hasty memorandums on loose papers, to remind them of what they have done or planned to do, or write frivolous and useless notes and letters! Instead of this very common waste of time, which may be said to render existence negative and barren, we class, in houses constructed for the purpose, whatever we deem worth preserving; and sifting the whole as we do, we re-

* I here allude to such persons as are habituated to observe and reflect, and generally to those who have received a liberal education.

tain nothing but what is calculated to yield some profit.

In the *physical account* we follow the course and the variations of our constitution. When the progression is good, the note will be short: if we remark a deviation, it will be desirable to fix the period of it, to state the symptoms, to enquire the cause, and to obviate the consequences. By this practice much more time will be saved than wasted.

As to the *moral account*, instead of scribbling trivial letters and notes, frequently dictated by slander and malignity, we shall collect for our own use the observations which we daily make on the human heart and passions, without naming or pointing at any particular individual. We shall learn to know ourselves, and acquire, to a certain degree, the command over our inclinations. It will not be every day that we shall have remarks to insert in this journal; but we enter in it at short intervals whatever interests us. We shall be astonished when, at the expiration of one or two years, we turn over the collection we have formed. Relinquish those frivolous or useless customs which run away with so many hours, and you will find a few minutes for this operation, which will prove to you a powerful medium of

saving time. Even such days when you have neither pen, ink, nor leisure, snatch a moment, and make a hasty memorandum with pencil of one or two leading words, which will serve, perhaps several days afterwards, to remind you of the idea or circumstance which you were desirous of preserving.

As to the *intellectual account*, every person who wishes to read with profit makes notes, analyses, or extracts. The only point is to give them a better arrangement, to class them with more method, so that we may be able to turn to them again the more easily without wasting time in looking for what we want. Accordingly, we but improve upon a method generally practised with more or less regularity, by all who read and study.*

* I have heard of a man eminent for his talents, a nice and acute observer, whose daily observations are frequently introduced into his works; and furnish him with useful materials; who regularly notes down every night the remarks made during the day, and who derives from this practice, constantly pursued for many years, a delicate tact and a manner of delineating characters that is almost invariably original, interesting, and true. The moral philosopher, the statesman, the orator, the dramatist, whom it more particularly behoves to study men, that they may be able to captivate their understandings, to work

5. The *fifth and last condition* has, like the others, not escaped censure, and may in fact be attended with some difficulties. It consists in drawing up every six months, or every year, a summary of our physical, moral, and intellectual situation, for the purpose of submitting it, either to a mother, if a person is fortunate enough to have one capable of justifying that honourable confidence, or to affectionate and enlightened relatives, or to a virtuous and sincere friend. These statements, in which self-love proves no bar to disclosure, since the writer speaks of himself in the third person under a fictitious name, and as he would of a stranger, enable him and the friend to whom they are submitted to judge whether there is *progression, stagnation, or deviation*, and which is the weak part of the faculties that require melioration.

Thus the five conditions of this method are equally practicable, nay even easy, and above all well calculated to render important services to those who chuse to comply with them. It is not then a vain theory; it is a plan which every one has it in his power to execute, which is particu-

upon their passions, and to govern their wills, would find valuable resources in such a method as ours.

larly suitable for young people, and which furnishes them with a Mentor and a guide.*

The principal objection is overthrown. There is neither an almost absolute impossibility, nor even any difficulty in following the proposed plan.†

* It has been asserted, that it is doubtful whether one youth in ten thousand would have the perseverance to follow the proposed method. To this I can reply, that out of more than thirty young men who learned it, fifteen practised it, and ten in particular have followed it for several years with regularity and success. Nothing, I repeat, is wanting, but perseverance and a will.

† Let us here make a general observation, on which too much stress cannot be laid, because it points out one of the chief obstacles to the advancement of the sciences and of morals. The philosopher, the man of science, the philanthropist, should rise superior to that error of the vulgar, who are always content to plod on in the old beaten track.

The vulgar have always regarded new, bold, and grand conceptions, which were above the ordinary capacity, as mere speculations and wild theories. Whatever is good, useful, and of general application, was at first new, and above the comprehension of the multitude, and was no doubt deemed impossible before it was discovered and practised. Languages; the alphabet, their element and instrument; writing, arithmetic, printing; the prodigies of mechanics and of navigation; the present results of civilisation, which are less noticed by superficial and inattentive minds, must once have appeared chimerical theories, dreams impossible to be realised. Why should mankind invariably throw discouragements in the way of those who devote

I admit, however, that this method, susceptible of being infinitely varied, modified, and reduced, though it has been deemed advisable to give it here all the extension it is capable of receiving, seems not to be applicable to all circumstances and to all persons. It is chiefly suited to him who wishes not to lose any thing that can assist him to acquire a more complete command over his own faculties, and to become a superior man. It is adapted to him also, who is called by his character or his talents, by a noble emulation, or by wealth and birth, to fill an exalted post in society. Such a person ought to strive more than any other to improve himself incessantly, and to justify by a real superiority of talents, knowledge, and virtue, the superiority of rank which seems likely at some future period to be assigned to him.

Some persons might confine themselves to the first three conditions of this method, namely, *the question which ought to govern the employment of all the moments of life; the daily examination; and the analytical journal*. Those who have more leisure, more perseverance, a more active

their studies and meditations to all that concerns their welfare and happiness!

mind, and who consider the three journals, physical, moral, and intellectual, as so many magazines, in which they may amass an ample store of principles, knowledge, and practical truths, will apply this auxiliary condition of the method to their own case. They will have more or less to write in these different journals, according as their mode of life, the disposition of their minds, and the persons and objects around them, furnish materials for observation and reflection. They will then imitate the industrious bee, which, in its desultory excursions, extracts the most exquisite juices from all the flowers, and afterwards combines them to compose its honey.

Every thing becomes easy by habit. The habit of rendering an exact account of our situation and conduct, of our conversations, reflections, and reading, and committing a summary of it to writing, requires in general but a quarter of an hour a-day, or an hour at most on such days as have been best employed, when the harvest of course is most abundant. And where, alas! is the man who does not waste one or perhaps several hours every day!

Our method has been censured as imposing the obligation of too rigid punctuality, of too constant regularity. It requires, in fact, nothing

but punctuality and order. But, if it had no other object and result than to impart these regular and methodical habits, which double our time and powers, it would even then confer inestimable advantages.

Second Objection.

Another more specious objection, and which at first seems in some respects to be well founded, must likewise be discussed. It will furnish occasion to obviate the inconveniencies which it would be wrong to consider as inherent in our plan.

“May not the practice of keeping a daily register of our thoughts and actions, though beneficial in many respects, tend to contract the mind, and to make it attach too much importance to trifling details, which are flattering to self-love and vanity, but frequently not worthy of being committed to paper?”

This rock needs but to be pointed out: it will be easy to shun it. The best practices are liable to abuse: ought they on that account to be proscribed? We should carefully separate a custom that is good and useful in itself, from the vices that may mingle with it and pervert its effects. Self-love is the disease of all men, but more especially of little minds. A sound and enlightened

mind, which loves and seeks truth, combats this secret and dangerous enemy with success. It is sufficient to be continually on our guard against it : and for this the very practice of our method furnishes the surest means. We shall say no more, but that, as it accustoms the mind to rise invariably from a particular fact to a general consideration, and to contemplate men and things from a very elevated point of view only, it must necessarily impart greater energy, extent, and profundity to the conceptions.

Third Objection.

Other critics have found fault with the method for other reasons : they have animadverted on it in this way :—" May not this method for the employment of time, from which the author seems to expect such great things, when it comes to be generally adopted by the class of thinking beings endowed with a reason that acts upon itself with a knowledge of causes, and by a free and deliberate volition :—may not this daily practice, which nothing is to escape, make a man an egotist, by teaching him to refer every thing to himself exclusively?—is it not to be feared that it will harden his heart, and impoverish his ima-

gination?—It seems likely to expose too glaringly the nothingness of life, to excite a disgust of it, and to dispel its illusions. It requires too much time, and must fatigue the mind. Not only is it impracticable in many of its positions; it is also pernicious, inasmuch as it cannot fail to render the character timid and pusillanimous. He who is always weighing the disadvantages of every thing he does never dares to determine; he hesitates at every step; his opinion and his will are vague and vacillating; and his conduct is influenced by this habitual disposition of his character."

I think I may reply with confidence, that these supposed dangers of the method are little to be apprehended, nay, that they are entirely chimerical. So far from impoverishing the imagination, the practice of keeping the daily journal provides for it a copious source of riches and enjoyments. It furnishes multifarious materials for observation and meditation. Instead of giving a trifling turn to the mind, and slavishly attaching it to puerile details, it teaches it to separate with care whatever is substantial and worthy of being preserved from what is useless and frivolous. Instead of hardening the heart and weakening that generous impulse which causes us to sym-

pathise strongly in the woes of others, our method disposes man to generalise his feelings as well as his ideas. It warns him never to separate his interests from those of his fellow-creatures, since continual experience convinces him of the close and necessary connection between them : it imparts greater energy and activity to the noble sentiment of philanthropy. So far from tending to produce a disgust of life, to sour the temper, and to generate spleen and melancholy, this method, in reality, imparts a new charm to life. It fixes, as it were, all its good things, and renders them more durable ; it diminishes all its evils, and renders them lighter. It furnishes it with a direction, and an end at its different periods. It gives more buoyancy and vigour to the mind, more fertility, freshness, and activity, to the imagination, more maturity to the reason, more solidity to the judgment, a kind of anticipation to experience, more strength to the memory, more accuracy to the observation, more ease, elegance, precision and clearness, to the style. It supplies means for governing our conduct, and for studying and making ourselves intimately acquainted with our physical and moral constitution, and it enables us to adopt the most suitable regimen in regard to both these points. It soothes the soul,

by affording it an asylum far from the turmoil of the world. It furnishes consolation in adversity, subjects for useful and agreeable reflection in pleasure and prosperity, and occasions for salutary self-examination. It produces a habit of studying the human heart, of profiting by good and bad examples, of regulating our intercourse with others, of asserting our rights, of performing our duties, of respecting ourselves, and thus obtaining esteem and confidence; finally, of observing the varied shades of social courtesies and decorums. We have already found that it gives greater extent and vigour to the thinking faculty; it enlarges and enriches it, by conducting it successively through the different branches of human knowledge.

The discussions and conversations of persons more or less acquainted with these subjects, at which we may from time to time be present, are not forgotten with the moment, but leave durable traces and results for him who extracts, digests, elaborates the substance of them, and, by a kind of assimilation, makes it his own. This method becomes, at the same time, a species of curb to repress the freaks of the imagination, and a real spur to excite the mind to motion and activity. Thus the physical, moral, and intel-

lectual departments are alike cultivated, developed, and improved. The individual is consequently meliorated; he places himself in a state of progression, which alone exalts man, and constitutes life; and he is of course more happy.

It seems to be demonstrated that, by the practice of this method, life is richer and better filled, more fertile in knowledge, pleasure, and results: it has less vacuity, excites less disgust, has a deeper interest, and attaches us to it more strongly. It has likewise been proved, that the execution of the method is easy in all situations; that it neither fatigues the mind, nor occupies too much time. Half an hour a day is sufficient: even on such days when we have no opportunity to commit our remarks to writing we may make two or three memorandums, and put down so many leading words in pencil. These words or memorandums, having the date of the day to which they belong affixed, enable us in a few days, or at the expiration of a week, or even a month, to draw up, in the space of one or two hours, or perhaps less, all the useful, interesting, and instructive articles that we think it right to preserve. We thus amass a store of valuable materials for mature years, agreeable mementos

for old age, and salutary lessons and advice to leave at our death to the children or friends who are to survive us. This practice, then, is attended with no fatigue of mind, no drudgery, or slavery, incompatible with the other obligations and the ordinary habits of social life. There is no compulsory sacrifice of too great a portion of time: for the method is susceptible of modification according to circumstances, and may be accommodated to every situation.

Lastly, it does not produce timidity and pusillanimity: on the contrary, it enables us to ground our conduct on more solid bases, and to avoid most of the errors into which men are too frequently plunged by thoughtlessness, rashness, and indiscretion. It provisions the mind, and fortifies the judgment, the reason, and the will.

Fourth Objection.

Some of those who have seen this Essay have found fault with the author, for his "silence on the subject of religion." He has, nevertheless, enforced in various passages, and especially in the notes to his *Introduction*, in support of the general laws which he proposes, the two grand and beautiful ideas of the existence of a God,

and the immortality of the soul. Genuine religion is wholly comprised in this cheering doctrine, and in morality, with which those two bases of all religious creeds are inseparably connected. The most worthy homage that we can pay to the Supreme Being consists in making a good use of time, and in rendering all the services we can to our fellow-creatures. Our method is not framed for this or that particular sect, for Protestants or Catholics, Jews or Turks, but for mankind in general. For this reason we have not referred to, or recommended, the practices of any religion, but the moral habits which ought to be cultivated by the professors of every creed, and by persons of every nation.

Fifth Objection.

“The method of questioning persons for the purpose of gaining information from them, which is exhibited by the author in so advantageous a light, seems scarcely susceptible of being applied by young people, who ought to be modest, and who could not, without great indecorum, and without appearing troublesome and ridiculous, annoy others with their endless and indiscreet interrogations.”

This general idea I cheerfully adopt. I am

far from wishing youth to throw off that modesty and reserve which heighten all the other virtues. Accordingly I have not recommended that youth should harass grown people at every turn and corner with importunate questions. In treating of the employment of time, I have necessarily been led to treat of the *art of employing and questioning men*: I have shewn the immense advantages that may be derived, in this respect, from conversation and society, and what an accession of information they afford him who is capable of observing, hearing, and retaining. The examples of several eminent men, who were proficient in the art of questioning, were adduced in support of my theory. I deem myself authorized to conclude that young people, eager after knowledge, ought, on proper occasions, and with modesty and reserve, to ask seasonable questions, such as good sense and reason would not disavow, of persons older than themselves. They will then the more easily obtain the answers and explanations they desire, since we always flatter the self-love of another, by manifesting a wish to learn of him what we do not know ourselves. Every one likes to speak on subjects with which he is thoroughly conversant. The human heart and mind, in their primitive forms, are universally alike:

we are always disposed to answer in a favourable manner the inquiries of those who cannot solicit information from us without paying homage to our superior knowledge of the matter to which their questions relate. Who can help listening with kindness to a mild and modest youth, who ventures to propose a question evidently dictated by a desire of information, and not by vain and frivolous curiosity?

Sixth Objection.

"The author," it has been said, "writes only for the least numerous class of persons, for the rich. His precepts apply to scarcely any but those who fill the highest ranks in society. In regard to the condition of those, who, according to his own expression, are doomed to a painful and continual struggle between their *destination* and their *destiny*, he manifests a truly philosophic resignation."

Such a reproach as this must proceed from misconception, or rather a determination to wrest the meaning of the author of this method. Has he not sufficiently shewn how deep an interest he feels in behalf of those respectable persons whose destination, clearly pointed out by nature,

is opposed by an ever hostile destiny? Has he not compassionately deplored the lot of those, who, though qualified to confer benefits on mankind, to distinguish themselves in a career consonant with their inclination and their talents, are exiled by society and by cruel necessity to a totally different sphere, and who can enjoy but a very small portion of that noble existence to which they had just pretensions? For these very persons the proposed method seems to afford a valuable indemnity, or at least a partial compensation for that ruinous consumption and immense waste of time, and the painful sacrifices of all kinds which their dependent situation impose upon them.

The author, then, has not proposed a plan adapted solely to the rich, who have nevertheless more leisure to put it in practice, and more need of obviating spleen by habitual activity. His plan is more particularly suited to that class of persons who know how to think. This class is no doubt the least numerous; but it is likewise that which has the most powerful influence upon society, which sets it in motion, and occasions its advance. It is this that produced and improved the plough, implements, and machinery of all kinds, institutions and laws, sciences and

methods : the good or bad direction which it receives determines the progress, the deviations, and the faults, or the prosperity and decline of governments and nations. To write for this class is manifestly to write in behalf of the general interests of mankind.

Seventh Objection.

The seventh and last objection that I shall notice embraces a general question, which has often been discussed.

The author of the method of employing time has been censured for considering man as a *perfectible* being, and for having frequently mentioned his perfection as a goal towards which he ought perseveringly to tend. To this charge I reply:—The doctrine of a human perfectibility, not absolutely unlimited or indefinite, since it is confined within certain bounds fixed for it by our organisation and condition, but undetermined for the individual, and even for the species, is irrefutable. This quality of being from his nature essentially perfectible, honours and distinguishes man. The sense of his possible perfectibility excites his courage, supports his efforts, directs and strengthens his will. I shall here

reinforce myself with the authority of the grave and religious Pascal, whose sublime genius will not be accused of abetting the systems of modern philosophers.

"By a peculiar prerogative," says Pascal, "not only each individual is making daily advances in the sciences, and may make advances in *morality* (which is the science by way of eminence, the art of living well and being happy); but all mankind together are making a continual progress, in proportion as the universe grows older: so that the whole human race, during the course of so many ages, may be considered as one man, who never ceases to live and learn."

If man individually were not susceptible of being changed, restrained, improved, what would be the use of morality, religion, laws, and governments? If the species itself were not perfectible, how could such prodigies of civilisation have been effected; and why should we make a distinction between uncivilised and savage tribes, plunged into ignorance and barbarism, and polished and civilised nations? There is, no doubt, a point of elevation which our frailty is not permitted to attain; and human nature is subjected to immutable and necessary laws, but

the limits assigned to it are fortunately unknown to us. "Men," says Bacon, "do not appear to know their own stock and abilities, but fancy their possessions greater, and their faculties less than they are."

Men, and young people in particular, are too frequently deterred from attempting what is good or great by its being represented to them as too difficult, as incompatible with their nature and their weakness. We are weak, because we are not sufficiently aware of our energies, and know not how to employ them. Our power depends more than we suppose on a generous confidence in our own strength, and in our will.*

* *Virtue and happiness, which ought to be the results of the science of employing time duly applied, are not beset with insurmountable obstacles; they are not mere theories and chimeras. Notwithstanding all that may be advanced by the opponents of the system of perfectibility, who, indeed, might easily be shown to contradict themselves, man is not doomed to languish for ever in a stationary condition. The progressive state is imposed on him by his very nature. The individual, like the species, tends essentially to perfect, to improve himself, to increase his happiness. The profound study of the moral and intellectual faculties of man, the opinions of real philosophers, and above all the Christian religion, which exhorts man, formed in the image of God, to strive continually to approach nearer to his divine model, confirm this cheering doctrine, so dear to the feeling heart and to the lover of humanity.*

Alcibiades was a great man, more particularly because no obstacle or misfortune could surprise or deject him, being persuaded that when minds of a certain order do not accomplish all they would do, the reason is that they have not the courage to attempt so much as they are capable of performing.

XXV. OF AN ANCIENT CUSTOM OF THE PYTHAGOREAN SCHOOL,
AND OF A PRACTICE FOLLOWED AND RECOMMENDED BY
FRANKLIN.

THE method which we have described was partially adopted in the school of Pythagoras. That philosopher enjoined his disciples to devote a few moments each day to an examination of their hearts, and to ask themselves these questions:—In what manner have I spent this day? Where have I been? What persons have I seen? What have I done right? What have I done wrong?

Another method of the same kind, followed and recommended by Franklin, consists in exercising ourselves in each virtue separately, for the purpose of rendering them all more familiar, by taking one after the other, and applying all the energies of the soul to each during a certain space of time. This preservative method, which

perfectly harmonises with ours; may be practised with success. It is peculiarly adapted to that period of life when it is easy to subdue the most unruly passions, or rather to prevent them from springing up, and to sow, cultivate, and mature in the soul, the seeds of all the moral qualities that elevate and distinguish man.*

An eminent French physician, who was an intimate and beloved friend of Franklin's, practised a nearly similar method. He asked himself *every morning* this question:—"How did I spend yesterday?" He instituted a kind of self-examination, and mentally reviewed all that he had done the preceding day, for the purpose of self-reproof and correction. He read, *every evening*, such sentiments of philosophers as furnish rules of conduct, and was fond of referring, in order to show the benefit that ought to be derived from reading, to this inscription placed over the door of the library of Alexandria:—*Physic for the Soul, or Moral Medicine.*

* See in Note 3 Franklin's own account of the method recommended by him, which may be practised at the same time with ours, when the two systems will be found mutually to assist each other.

XXVI. OF SEVERAL EMINENT MEN WHO HAVE SUCCESSFULLY
PRACTISED THE ART OF EMPLOYING TIME.

A FEW examples, adduced from the lives of celebrated men, will serve to confirm our doctrine: They will prove that all those who hold a distinguished place in history acquired the reputation and superiority which they attained, either in science or power, solely by scrupulous attention to make a good use of their time. The science of employing time is not subservient to virtue and happiness alone; it is likewise one of the surest means of acquiring fortune and celebrity, of earning glory, and of succeeding generally in whatever we undertake.

Antiquity offers to us the example of Aristotle; justly surnamed the *prince of philosophers*. Continually engaged in study, he ate little and slept less. Diogenes Laertius informs us, that, to prevent his being overcome by sleep, he extended one hand, in which he held a brass ball, from his bed, that, by the noise which it made in falling into a basin of the same metal, he might be kept awake. Aristotle soon surpassed all his fellow-students. He visited the principal cities of Greece, seeking the acquaintance of all those from whom he could obtain information: his

inquiries extended to the most trifling subjects, and he committed to writing the particulars which he obtained, lest he should forget any useful circumstances. When Alexander the Great had attained his fourteenth year, his father Philip placed him under Aristotle's tuition. The preceptor instructed his pupil in the sciences in which he himself excelled. Alexander, therefore, observed, that if he owed his life to Philip, it was Aristotle who had taught him to make a good use of it.*

The great renown of Alexander served as a spur to the ambition of Cæsar. That Roman, on beholding a statue of the Macedonian hero at Cadiz, shed tears, and exclaimed: "At my age he had conquered the world, and I have yet done nothing worthy of record!" The extraordinary

* When Alexander had ascended the throne, grateful to the preceptor by whom he had been educated, and wishing to avail himself of his extraordinary genius for the purpose of extending the sphere of human knowledge, he solicited Aristotle, by letter, to compose a history of animals, and sent him eight hundred talents to defray the expense of the undertaking. He furnished him also with fishermen and hunters to facilitate his investigations. Aristotle's work on Natural History is a monument of Alexander's love of the sciences, and one of his most durable titles to renown.

activity of Cæsar, who was both a warrior and a negociator, a statesman, an orator, and a writer, was the principal cause of his success in life. Pliny relates, that he would read and write at the same time, and dictate at once to several secretaries in as many different languages while giving audience to ambassadors.

Cicero, whose genius placed him on an equality with Cæsar, who was continually entrusted with the business of the state and of private individuals, found, amid troubles and storms, amid the occupations and vicissitudes of life, leisure sufficient to acquire a thorough knowledge of all the doctrines of the philosophic sects of Greece. During a career of such prodigious activity, he composed numerous works of different kinds, on almost all the subjects interesting to man, subjects on which, as it is evident, he had profoundly meditated.

Augustus, as we are informed by Suetonius, was extremely assiduous in study, especially in the study of eloquence, and had from an early age led a very laborious life. Such was his passion for the sciences, that he always conversed during meals on matters of erudition. He also cultivated poetry, and usually composed while bathing. In this manner he employed every moment. He was

accustomed to digest and commit to writing all his addresses to the senate, the people, and the army, nay, even every important communication that he had to make to his wife. He forbade his family and his grand-daughters to do or say anything in secret that was not fit to be recorded in the family journal.*

Vespasian's time, after he became emperor, was thus divided: he always rose early and before day-light: after reading the letters and looking over the memorials directed to him, he received his friends, and dressed himself while conversing with them: he then attended to any other business he had to transact, afterwards took a walk or ride, and rested some time: he bathed before he went to table, and during his repasts he conversed in the kindest and most affable manner with those about him; thus making intervals of useful recreation and well employed leisure succeed his numerous avocations.

Alexander Severus, who was constantly intent

* The practice of keeping a *family journal*, in which the father should inscribe the most important acts of the lives of his children, and which should be read to them at the end of every year, would be a highly moral domestic institution, and well calculated to produce the best effects.

on the prosperity of his people, devoted the whole day to the transaction of public affairs and the administration of strict justice to individuals. He then sought recreation at night from the cares of government in the society of the best and most enlightened persons, whom he cautiously selected for admission to his familiarity, in order to consult the one and to gain information from the other.

A succeeding emperor, Julian, who considered the sovereign power as an extension of his means of doing good to mankind, and who acted consistently with this principle, equally desirous, from the natural bent of his disposition, and from policy, to diminish the number of his enemies, and to augment that of his friends, multiplied himself, in a manner, by his activity. Passionately fond of the Greeks, imbued by daily and nightly study with the spirit of their writers, an enthusiastic admirer of Homer and Plato, eager and insatiable of knowledge, endowed with that kind of imagination which is captivated by every thing extraordinary, having moreover an ardent soul, and that energy which can urge forward better than check—he embraced, he applied himself to every thing. When mortally wounded, at the age of thirty-two years, he beheld with serenity the approach of his last hour; and the

recollection of his life shed a lustre over his death : " My life has been short," said he, " but my days have been full. Death, which is an evil to the wicked, is a good to the virtuous : it is a debt which a wise man ought to pay without murmuring. I have been a private person and an emperor, and in neither station have I done any thing, as far as I know, of which I have reason to repent."

Such is the noble testimony that will be borne by the conscience of every one, who from his earliest years has firmly persisted in the resolution to make good use of his life.

No sovereign ever possessed the art of doing the greatest things with ease, and the most difficult with promptitude, in a higher degree than Charlemagne. He governed his household with the same wisdom as his empire. In his prodigious activity he found resources unknown to ordinary minds, and he contrived at once to conquer his enemies, to polish his subjects, to advance and patronize literature and the sciences, to re-establish the navy, and to perform in a few years what would seem to require several centuries.

Alfred the Great, one of the best kings that England has to boast of, partly owed his success and his glory to the attention which he paid to the due regulation of the employment of his time,

To this end he divided the twenty-four hours of the day into three equal portions; one of these he appropriated to public business and affairs of state;* another to reading, study, and religious duties; and the third to bodily exercises, riding, hunting, various sports and recreations, repasts, and sleep. As clocks were not then invented, he contrived to measure time by means of six tapers of a certain length, which burned four hours each, in lanterns placed at the entrance of his palace, and his chaplains gave him notice whenever one of them was consumed. In this manner his superior genius made amends for the deficiencies of the arts. This rigid economy of time, and the art of employing it to good purpose, rendered him one of the most learned men of his age, so that, had he not been illustrious as a king, he would have been famous as an author. An historian, treating of this monarch, breaks

* It is generally allowed that this monarch not only digested several particular laws which are still in force, but that he laid the first foundation of our present happy constitution. There is great reason also to believe that to him we are indebted for trial by jury, and that he was the first who divided the kingdom into shires, at the same time establishing a new form of judicature. For these and other benefits conferred on his country the name of Alfred is still held in high and deserved veneration.

out into this apostrophe:—"O! Alfred, the wonder and astonishment of ages!—If we reflect on his religion and piety, we shall suppose that he spent his whole life in a convent; if we think of his military exploits, we shall imagine that he was never out of camps; if we recollect his erudition and his writings, we shall presume that all his time was passed in the schools; and if we consider the wisdom of his government, and the laws which he framed, we shall be convinced that these were the exclusive objects of his study."

The orientals, whose ordinary life is a kind of lethargic slumber, refer with pride to one of their most celebrated princes, the great Saladin, who was not less estimable for his humanity and justice than for his valour, and above all for his indefatigable activity. He held his divan or council in person, every Thursday, assisted by his cadis, as well when in his capital, as when at the head of his army. On the other days of the week he every morning received petitions and memorials, and pronounced judgment in urgent cases: and all persons, without distinction of rank, age, country, or religion, were allowed free access to him. From the habit of thus seeing people of all classes, and reconciling many jarring interests, he acquired a more intimate knowledge of the

human heart, and greater skill in the difficult art of government.

Activity was likewise the predominant quality of Henry IV. of France, who was adorned by many other virtues. In camps, amid the fatigues and dangers of a war at once civil and religious, he was seen denying himself all repose, mingling with the soldiers, lying like them upon straw, going his rounds day and night to inspect the most important posts: he was every where, saw every thing, encouraged all by his presence; he scarcely allowed himself to sleep or eat, and multiplied his life by the use which he made of his time. It was observed of him that "other generals carried on war like lions, Henry like an eagle." He appropriated to himself Cæsar's celebrated motto: He flew, he came, he conquered. He seemed at once entirely devoted to the affairs of government, the fatigues of war, and the duties of friendship.

The virtuous Sully, his friend and minister, was not less economical of his time than of the revenues of the state. We learn from his memoirs that he retired early to rest, that he slept little, that an invariable rule and order governed his occupations. In his attention to business he was indefatigable. He rose at four o'clock every

morning. The first two hours were employed in reading and disposing of the papers that were laid upon his desk. This he termed *sweeping the carpet*. At seven he repaired to the council, and spent the rest of the forenoon with the king, who gave him his orders concerning the different departments over which he presided. He dined at noon. After dinner he gave audience, to which persons of all classes were admitted. The clergy of both persuasions were first heard. The farmers, and other persons of low condition, who are frequently afraid to approach a man high in office, and especially a prime minister, had their turn next. The great and the noble were received last. He was afterwards usually engaged in business till supper-time : he then ordered the doors to be shut, and indulged in social pleasures with a select number of friends. Ten was his regular hour for retiring to bed ; but when any unexpected circumstance had deranged the ordinary course of his occupations, he made up the deficiency of the day by encroaching upon the night. Such was the kind of life which he invariably led during his administration.

If we turn from princes and statesmen to scholars and philosophers, we shall find in like manner that all those who have acquired distinction

were chiefly indebted to the good use of their time for their success, eminence, and reputation.

Boerhaave, the physician, whose fame filled all Europe, owed his vast erudition, his prodigious celebrity, his domestic happiness, his peace of mind, the preservation of his health, and the prolongation of his life, to a judicious and regular distribution of the different employments of his time. His mornings and evenings he devoted to reading and study, and the middle of the day to the public. A few moments were given to his friends or to amusements, such as music, of which he was passionately fond. He rode on horseback every day as long as his health permitted; but when age forbade that exercise he took a walk in its stead. When he could not go abroad he played on the guitar. An alternate mixture of occupation and rest constituted an essential part of his regimen. His mild and uniform philosophy, springing, in a great measure, from the regularity of his life, was proof against malignity; and he disarmed slander and satire by the contempt with which he treated them.

Haller, a name which naturally classes with the preceding—Haller, the physiologist, who united with prodigiously extensive knowledge the most estimable moral qualities, was particularly

remarkable for his love of occupation. He considered time as a treasure which cannot be husbanded with too much economy, and thus quadrupled his existence. His method of collecting materials for his great physiological work consisted in noting down extracts from his immense reading, upon sheets or leaves of paper cut and arranged for the purpose, and then depositing these sheets, or analytical notes, in drawers numbered and labelled, so that he could afterwards easily lay his hand on them for the purpose of classing them in any suitable order, and bringing together such as had any connection with one another. In this manner he stored up the fruit of his researches to be used when wanted. He found means to combine the advantages of extensive, profound, and well digested erudition with those of observation and meditation. All the analogous and identical facts met at one general place of rendezvous. False or imperfect observations were gradually corrected, modified, or completed; and facts confirmed by fresh experiments. In this mode of proceeding, which may be recommended with confidence to those who undertake works of any magnitude, consists the happiest application of the *principle of division and reunion*.

Such was Haller's activity, and so strong the impulse that urged him to literary pursuits, that, having had the misfortune to break his right arm, he learned in a few nights to write tolerably well with his left hand. He was incessantly employed, and communicated his activity to those about him.—Activity confers on those who are endowed with it, to a certain degree, a kind of empire over others; it multiplies the faculties, and consequently the existence: but it keeps him who cannot set bounds to it in a continual fever, which consumes the blood, and, in this point of view, it shortens life. Due moderation should be observed in all things.

The great Frederic, an author and philosopher upon the throne, as well as a warrior, legislator, and politician, was likewise sensible of the value of time, and knew how to employ it. Wishing to break himself of a habit which he had contracted of lying too long in bed, he gave orders that a napkin steeped in cold water should be thrown over his face to waken him. He fixed beforehand the distribution and employment of his time, which he so regulated, as never to defer the business of one day to another. Till the latest period of his long life, he rose at four o'clock every morning, and dressed himself at

once, that he might not lose valuable time in changing his clothes during the day.

Convinced that the good use of time is one of the chief concerns of the wise, Prince Henry of Prussia, like his uncle Frederic, was in this point a model for philosophers, as well as statesmen—a circumstance the more astonishing in these two eminent personages, inasmuch as it seems scarcely reconcilable with the love of independence which formed the groundwork of their character. But this formality in the order of their pursuits and amusements was perhaps one of the principal causes of whatever great or useful they performed in the course of their lives. Reading was one of the means by which Prince Henry amused his solitude: he had recourse to it for that relaxation which contributes to support the mind even under the severest mortifications.

The learned and celebrated Dr. Samuel Clarke was peculiarly cautious not to lose the least moment of his time. He always carried some book about with him, which he would read while riding in a coach or walking in the fields, or if he had any leisure moments free from company or his other studies: nay, he would read even in company itself, where he might take such a liberty without offence to good manners.

We might extend our researches and quotations much farther.* It would perhaps be curious and instructive to study the lives of illustrious persons with a special view to the employment of their time. But it is sufficient for our purpose to have shown by striking examples the justice and excellence of our principles. The judicious employment of time alone makes men great, learned, just, good, and happy.

XXVII. OF A GENERAL DIVISION OF THE VARIOUS EMPLOYMENTS OF TIME DURING EACH INTERVAL OF TWENTY-FOUR HOURS.

WE shall now propose a general plan, susceptible of infinite modifications, for an accurate and proportionate division of the various employments of time in each day.

The most judicious arrangement for the application of each interval of twenty-four hours seems to be the following:—*Eight* or even *seven* hours will be sufficient for sleep.† Eight hours should

* The reader may particularly consult the lives of the ancient philosophers, especially Pythagoras, Plutarch's Lives, the life of Bacon, the history of Queen Elizabeth, of the Czar Peter I. of the empress Catherine II. and the biography of the great writers of the last century. Wherever we meet with durable results, we find that they sprung from great activity judiciously directed.

† The Salernian school, which is less indulgent, allows but

be devoted to *study*, reading, intellectual pursuits, or official duties. The remaining eight hours of each day will be occupied by meals, different bodily exercises, walks, visits, social duties, agreeable and instructive conversation, amusements and recreations of every kind. This division of life may, and indeed ought to be occasionally modified according to a person's circumstances and situation; but it is advisable to depart from it as little as possible. With respect to meals and sleep, an ancient French adage prescribed the most suitable regimen for prolonging life: it was to this effect—*Rise at six, dine at ten, sup at six, and live ten times ten.** Our own homely distich:

six hours' sleep alike to the young and the old, scarcely seven to the sluggard, and eight to none:

Sex horas dormire sat est, juvenique, senique;
Vix pigro septem; nulli conceditur octo.

* Fontenelle retired to bed regularly at nine o'clock, rose at five (after *eight hours' sleep*) employed himself till dinner time, about two or three o'clock in the afternoon; then spent the other six hours in recreation, in walking, or instructive conversation with enlightened men or amiable and intelligent women. Being fond of order and quiet, the regularity of his life and the moderation of his disposition at once promoted his happiness, preserved his health, and prolonged his mortal existence, which nearly reached a century. The reader may consult with advan-

Early to bed and early to rise
Is the way to be healthy, wealthy, and wise,

is too apposite to our subject not to occur to every reader. A habit of retiring early to rest, and of rising early, actually appears to be very favourable to the development of the powers and the preservation of health.* Those who lie half the day in bed become effeminate and enervated; they lose that activity which, properly directed, can alone confer value on life.

The greatest men have invariably given only a small number of hours to sleep,† but just so many as are absolutely required by nature: they have thus turned to account part of the time of which it robs those who indulge it to excess.

see Bacon's *Treatise on Life and Death*, which contains some very curious inquiries on the art of prolonging life.

* "It would be thought a hard government that should tax its people one-tenth part of their time to be employed in its service: but idleness taxes many of us much more; sloth, by bringing on diseases, absolutely shortens life. Sloth, like rust, consumes faster than labour wears. Dost thou love life, then do not squander time, for that is the stuff life is made of." *Franklin's Memoirs*, published by his grandson. Vol. v. p. III.

† See above, Chapter XXVI. the examples of Aristotle, Sully, and Frederic the Great. Buffon insisted that his valet should pull him out of bed by force, if he could not make him rise without it.

"Sleep little," says Locke: "great sleepers become brutalized."

"Frequent and daily exercise," says Hippocrates: "I know not whether motion be not as necessary for man as food."

Avoid excess at table: intemperance ruins the constitution, degrades the soul, and beclouds the understanding.

Shun excess in study and meditation. Those who follow intellectual pursuits with immoderate ardour, who prolong their vigils till too late hours, exhaust their powers, and speedily arrive at premature old age.* Exertion of the mind and inaction of the body carried to excess are alike destructive of the most robust health.

Adopt a due medium in the allotment of your time to the purposes of rest, study, and bodily exercise. Nature exhorts, nay commands you to avoid excess of every kind. *Neither too much nor too little* is the motto of the wise.

Wear not yourself out by late watching, nor by too long and too intense mental application,

* Some very useful instructions on this point, and many salutary rules relative to health, may be found in the *Treatise on the Diseases incident to the Studios*, by Tissot, the celebrated physician.

nor by dangerous and deceitful pleasures, nor by fatigues disproportionate to your strength. An alternate mixture of daily and moderate exercise, study, and reading, enables you to allow rest by turns to the body and to the mind; and keeps all the faculties in due equilibrium and in a state of progressive improvement. Thus the whole life is usefully employed; and man, exempt from most of the diseases, vices, passions, prejudices, and errors, which torment his fellow-creatures, at once healthy, wise, virtuous, good, and happy, fulfils the purpose for which he was placed upon the earth.

XXVIII. DESTINATION OF MAN.

SINCE we must all alike descend sooner or later to the grave, let us at least strive to perform our task well in our short passage through life; to be happy and to do good; to leave some traces behind us and to deserve some regret. This exhortation we cannot too often repeat to ourselves: the idea of death should warn us to make a good use of life. This reflection, which ought to govern the employment of a great portion of existence, and which accustoms us to survey with serener eye the termination of our career, apprises us also to limit the circle of our labours, so that

we may have it in our power to complete them all, and to leave here below some actions worthy of remembrance, and some results beneficial to humanity. If each person were to look at his situation and his duties from this point of view, things would go on much better than they do in the world: every one would then contribute to the general welfare; every nation would advance in wealth, in knowledge, and in happiness, by the concurrence of all the individual efforts, directed to one and the same end, though in different spheres. Too often do we forget this duty of humanity, this destination of man, this grand end of society, this real method of ensuring our own happiness by contributing to that of our fellow-creatures. We seclude ourselves and seek our particular advantage at the expense of others. Selfishness, indolence, carelessness; false philosophy, prejudice, ignorance; pride, pusillanimous mediocrity, or vain and inconsiderate presumption; base malignity, perfidious hypocrisy; ambition, which contracts the heart, when it is confined to narrow views of personal elevation, and limited to the interest of a single individual; but which enlarges the soul when it is noble and pure, when it has for its object the public weal, the advancement of one's country in science,

power, knowledge, and consequently in felicity: all these vices, or rather mistakes, some of which have their source in the heart, others in the head, retard the progress of the human race. They prolong the reign of ignorance, of weakness, of corruption, and of all the inveterate and contagious diseases which prevent societies from growing and flourishing. Men who have not duly reflected, who have narrow views, or will not be at the trouble to reflect, who are sluggish and careless, or selfish, or profoundly ignorant, or possessed with systematic and false opinions and gross prejudices, believe these maladies to be incurable, and regard as absolutely impossible what is merely difficult, in consequence of the obstacles created by ourselves. They are not aware of the immense progress that has already been made, though slowly, in the course of ages, or of the still greater, more speedy and more certain advances which might easily be made, by giving a strong and simultaneous impulsion, a judicious, general, uniform, and ever active direction to efforts and passions, to affections and sentiments, to the mind and heart, to the arts and sciences, to the conceptions of genius, to talents of every kind, and to men of all professions and of all classes. I am always brought back to this point:

—the more we study in history the course of the human mind, and that of the development and successive periods of societies; the more we consult the philosophers and the profound and judicious writers who have been the oracles of different ages, the more strongly the possibility, nay even the facility of success seems to be demonstrated.

The successive revolutions of nature and politics have convulsed the globe. The sciences, long confined to Greece, the truly classic soil of genius;* then stifled for several ages of barbarism; again issuing triumphant from amidst profound darkness, but, at the period of their arrival, more fertile in vain reasoning and high-flown systems than in useful inventions and discoveries; and lastly vivified by a sound philosophy, have accelerated in the greatest part of Europe the progress of civilisation. The latter, seconded in its turn by the invention of the mariner's compass, by navigation, commerce, the conveyance of letters by post, printing, and the

* The Greeks, had their country produced but a Homer, an Aristotle, and an Hippocrates, would still have been on this account alone an admirable nation. But how many distinguished orators, poets, philosophers, men of science, artists, generals, and legislators, figure in their annals!

establishment of standing armies, which, however they may be decried, have afforded to the interior of each state greater security of property and stronger encouragement to industry, has promoted the propagation and more advantageous employment of knowledge. At the present day, genuine practical philosophy, generally known and duly appreciated, makes glory consist in virtue: it decrees that we shall aggrandise our own being, by improving the means offered by the science we have embraced of doing good to our fellow-creatures. To love men is the first requisite for being capable of benefiting and worthy of governing them. To love and to benefit mankind is the principle of all the virtues, of generosity, of heroism; it is the soul and end of the sciences, the spring of actions that lead to real and solid glory.

This high destination of the man who feels a vocation to concur in the great work of the advancement of his kind, and first of the community or nation to which he belongs, ought, above all, powerfully to stimulate a high-spirited, generous, enlightened youth, actuated by a noble and laudable ambition, by an ardent desire to acquire fortune and fame by honourable and legitimate means, who appreciates all the enjoy-

ments and advantages accruing to him from the industry, exertions, observations, and inventions of past ages, and who wishes for his part to acquit himself of this debt, and to bequeath a similar legacy to those that are to come after him.

XXIX. DESTINATION OF CERTAIN INDIVIDUALS—EMPLOYMENT OF MEN.

WE have treated in the preceding chapter of the *general destination of man*, which is to do good to his fellow-creatures in order to ensure his own happiness. It likewise behoves us to examine the *particular destination of certain individuals*, and the *art of employing men*, which consists chiefly in making their *destiny* harmonise with their *destination*. The *employment of men*, one of the most important branches of the science of *employing time*, with which the employment of wealth also is connected,* cannot be well conducted unless by a judicious application of our *law of proportions*: *all things are relative*. Every man, in fact, may be fit for this or that particular purpose and for no other. We can

* The *employment of time*, the *employment of men*, and the *employment of wealth*, may be considered as the three great elements of the art of government.

distinguish innate primitive dispositions, which it is the province of education, legislation, morality, and religion to develop, to direct, to modify, but which still retain considerable influence. ~~Every person is likely to~~ succeed in that which is analogous or *relative* to his organisation: the essential point is to be employed precisely in his proper sphere. The importance which every thing possesses in our estimation is always *relative*, either to our wants or to our dispositions: and it is in such pursuits only to which we attach importance that we can succeed. The soldier, fired by the sentiment of honour, regards it as the bulwark of the country, and the noble instrument of its glory. The farmer is the nursing father of the state. The judge maintains social order, by protecting property, which is its foundation. The lowest conditions are exalted and ennobled by the same principle. The shoemaker who would distinguish himself in his profession ought to take a decent pride in it, and even to entertain exaggerated notions of its utility. It is by his means that the intercourse between men has been facilitated, that greater activity has been given to commerce, that armies are enabled to traverse with rapidity vast regions. Every profession should be honourable in the eyes of those who

exercise it : and each ought, as far as possible, to embrace that profession which appears to him the most honourable and the most useful, because it has a conformity with his talents and inclinations.

Happy the man whose *destiny* permits him to fulfil his *destination* ! Too often, on the contrary, are these at mortal variance with each other. The former calls man to great and useful things in a career analogous to his propensities and disposition ; the latter ties him down to occupations which he dislikes, and imposes on him trivial and servile duties, while he feels himself urged by an invincible power into a totally different sphere. The great Hector, dragged bleeding in the dust round the walls of Troy, is the melancholy but faithful image of these unfortunate persons, sacrificed for life to their cruel destiny, which frequently renders their better part useless, and paralyzes and extinguishes all their faculties.* It

* How many illustrious persons, possessing superior merit, or adorned with the rarest virtues, neglected by their contemporaries, and betrayed by their destiny, have been plunged from affliction into affliction, in that very country which they were called to enlighten, to serve, and to defend ! How many men, whose talents conferred honour on France and Europe, were cut off during the revolution, in the middle of their career, by the barbarous scythe of faction !

is, nevertheless, the interest of those whom contrary fate keeps aloof from the situation to which a kind of instinct seemed to summon them, to perform with zeal the duties attached to their functions. They ought to overcome the obstacles which they encounter in their career, nay, even to convert them, according to our general principle (*Law of Obstacles*), into means of success, that they may acquit themselves with honour of the obligatory employments imposed by their condition, and the optional employments with which they charm their leisure.

The science of *employing men*, and adapting their functions in the different classes of society to their respective professions, is essentially connected with the *employment of time*, considered in its relations with *political economy*, and may become an essential element of prosperity. Happy the nation, the majority of whose members are employed in functions consonant with their dispositions, and with the species and degree of their capacity!* As societies cannot exist and

* If a man capable of producing a value equal to *one hundred* in a post suited to his talents is chained to an employment in which he can have only a force or value equal to *ten*, there is, of course, a loss equal to the difference, or *ninety*, to the indi-

prosper but by industry ; as the productive value of labour is always in proportion to a better use of time and men ; a medium of employing time to good purpose, which also imparts the secret of obtaining the greatest possible profit from human faculties, and of multiplying the real value and the results of labour, is the genuine creative principle of all that is good and useful, of private and public happiness, of all kinds of advantages to which a society has a right to aspire, and finally of the simultaneous progress of morality and knowledge, of wealth, and of civilisation.

XXX. OF THE PROGRESS OF THE HUMAN MIND.

THIS spirit of improving the sciences, with a view to the advancement of society, would produce great and salutary effects, if it were generally excited in youth, and if individuals could early receive in society a direction conformable with that which nature seems to point out to them. If we turn to past ages, what an infinite distance we find between the first man, who with his hands tore off the skins of animals which he had

vidual himself and to the state. The loss is double when the post which requires a force or capacity of *one hundred* is filled by a man equal to *ten* only.

killed in the chase, for the purpose of fashioning them into rude garments, and the skilful manufacturer, who, with the aid of various instruments, looms, and machines, produces cloths and stuffs of every kind, equally delicate and strong, to which the scissors and the needle afterwards give elegant and convenient forms ! What a distance again between those who first timidly coasted the sea-shore in a mere canoe hollowed out by fire, and those intrepid navigators, who, guided by the compass, traverse the immense plains of ocean in vessels, the master-pieces of human ingenuity !

These prodigies of human genius are the results of a better *employment of men and time*, of a better direction given to labour, and its more judicious division. As all men are no longer obliged to apply themselves to a great number of different objects at once, which would have levelled the distinctions of talents had all pursued the same occupations, each individual has been enabled to consult his natural disposition, and to follow it more or less ; while some, pursuing their particular destination, have created for themselves a destiny calculated to promote it.

At the present day every person ought to be stimulated by the example and the success of

our ancestors, by the contemplation of the immense advances which they made, of the obstacles of every kind which they surmounted, to arrive at the degree of civilisation which we have attained. Each individual, applying these reflections to his own situation, ought to feel solicitous not merely not to be inferior to those who have distinguished themselves before him in the same sphere, but to surpass them as they surpassed their predecessors, and thus to contribute to the progressive advancement of his particular art.*

Superior men, to whatever class they belong, who leave traces of their existence, are such as, avoiding the retrograde and disdaining the stationary state, have been resolutely bent on advancing in the career into which they were thrown, and contributing to the progress of the art, science, or profession which they had embraced. Such have also been the benefactors of the human race, by adding to its enjoyments, knowledge, wealth, virtue, and happiness. All these things, I repeat it, are essentially united together, and in some measure synonymous and identical.

* See Note 4, *On the Progress and Effects of Civilisation.*

XXXI. DUTIES OF A FATHER OF A FAMILY.

FORTUNATE is the youth, whose parents, imbued with these wholesome truths, have sufficient observation, intelligence, and foresight, to anticipate and judge what their son may and ought one day to become; to facilitate for him the means of fulfilling his destination, and of giving a complete development to his natural and primitive dispositions; to cultivate with care his early years; to store his mind beforehand with the most needful knowledge, which will enable him to proceed alone and without guide, and smooth for him the road which he will have to travel; finally, to awaken in his soul, and to direct the noble and generous passion of distinguishing himself by services rendered to his country, by works beneficial to mankind! A good father ought not to be merely the confidant, the friend, the adviser of his son: he ought to regard him as another self: he ought to have for him prudence, experience, providence, ambition, and wealth.* He ought to furnish his children

* The words *science*, *ambition*, *wealth*, used in this *Essay*, may startle some ears; they may be deemed dangerous seeds and obstacles to happiness and virtue.

with all the resources that can spring from a good physical and moral education, and from careful instruction, and to give them a determinate di-

With regard to *science*, we always bring it forward accompanied by the purest morality, and render it constantly useful and agreeable to him who cultivates it, and to mankind in general, to whose benefit the results of all the sciences ought to be invariably directed.

Ambition is a delicate point, on which it is necessary to be very explicit; for this passion, like all the others, has its rocks, excesses, exaggeration, and dangers, and frequently leads even to crimes. But if men have almost uniformly altered and corrupted all the propensities, not excepting those which are natural and laudable, it must not thence be concluded that these propensities ought to be indiscriminately condemned and proscribed: let us rather trace them up to their source, study their character thoroughly, and bring them back, if possible, to their primitive direction. Ambition, as defined and regulated by us, seeking the means of personal advancement exclusively in services rendered to our fellow-creatures, is but an extension and application of that general desire of melioration and ever progressive improvement, which excites all men, and renders them useful to one another. This noble and legitimate ambition, the only ambition that we kindle in the souls of our disciples, and that we wish to find in their parents, is a powerful, salutary, necessary mover, without which there is a general stagnation; the extinction of every faculty, the deterioration of the individual, and real death ensue. It is the soul of the moral world and of society. It is this which, supported by a brilliant genius and a great soul, eager after that solid glory which is founded on the public weal, produces great men and great actions of every kind.

rection, suitable to their talents, their natural inclinations, or their acquired knowledge, and the circumstances in which they are placed : he ought, in short, to regard their existence rendered honourable and useful as a prolongation of his own existence beyond the grave. The first cares required by infancy are but a portion of the immense debt which paternity imposes. Thus each generation, training with attentive and religious zeal that which is to succeed it, would give a progressive and salutary impulsion to the human mind. The family spirit, properly di-

Wealth has never been pointed out by us as an *end*, but as a *mean*. It would be an *end*, false and deceitful, contemptible and full of vanity ; but it is a good and useful *mean* for him who knows how, and who is determined to make a noble and worthy use of it. With wealth, duly appreciated and employed, we possess more power to do good to our fellow-creatures, to be of service to our country, to promote the advancement of the arts and sciences, and thus to create our own felicity. The man who acquires wealth by his labour cannot obtain a benefit equal to ten for himself without conferring one equal to one hundred on society. The *law of exchanges* admits of no personal advantage, but what blends by a happy and necessary mixture with the great mass of public interests.

Family spirit, properly directed, tends essentially to the general prosperity. A good and enlightened father ought therefore to be desirous of possessing science, ambition, wealth, and foresight, for the sake of his children.

rected, would then tend to promote public prosperity and social improvement. Every individual, in chusing a profession and cultivating a science, should apply to himself this beautiful passage, in which Rousseau, strong in the authority of Bacon and Pascal,* two of the brightest geniuses that ever appeared upon earth to enlighten mankind, pays homage to the almost indefinite perfectibility of human nature :—"We know, or may know, the first point from which each of us starts to arrive at an ordinary degree of intellect : but who can tell where is the other extremity ? I am not aware that any philosopher has yet been bold enough to say—here is the limit which man may attain, but which he cannot pass. We know not what our nature admits of our being : none of us has measured the distance which may exist between one man and another. What soul is so base as never to have been warmed with this idea and not sometimes to have exclaimed with pride :—How many have I already outstripped ! how many may I yet overtake ! Why should my equal surpass me ?"

* See the beautiful idea of Pascal, quoted at p. 213, in support of the doctrine of the perfectibility of man.

XXXII. NOBLE EMULATION THAT OUGHT TO INSPIRE
THE YOUNG.

A YOUNG man, be his profession what it will, whether he be a merchant, manufacturer, lawyer, physician, chemist, architect, soldier, farmer, mechanic, or artisan, should be profoundly impressed with these principles: "I will not linger," he should say to himself, "in barren and disgraceful mediocrity: I will strive to find sufficient resources in my own genius, aided by observation and study, or in persevering and active industry, in firm resolution, in constant meditation, seconded by the intelligence and the examples which have preceded or which surround me, to deserve to be pointed out as a model, to raise myself above the obscure and insignificant multitude, to act a distinguished part, to be happy by making myself useful."*

* It is from a mistaken notion, I conceive, that *childhood* is generally called the happiest period of life. It is exempt, indeed, from the cares and troubles which frequently annoy man in the other periods of existence; but it is a kind of vegetation, a passive and negative life. It depends upon ourselves alone to be happier in *mature age*, for then we can enjoy the complete development of our faculties; we possess, in consequence, more means and instruments of preservation and felicity; but *youth*

The necessary consequence then is that he acquires fortune and celebrity by means of the immense power of continuity of action, and by the determination to attain them. Such a person does not vegetate on the earth—he lives, and is worthy of living.

XXXIII. GENERAL RESULTS OF THE UNINTERRUPTED PRACTICE
OF THE PROPOSED METHOD FOR REGULATING THE EMPLOY-
MENT OF TIME.

To him whose heart and imagination are strongly stimulated by the desire of distinction, who does not remain cold and insensible while calculating what he may become by the well-directed employment of his faculties; to him belongs more particularly the application of our plan.

To learn to observe ourselves and to know others, to speak little, to be silent at proper times, to will resolutely, to subdue anger, to avoid the snares of self-love, to conquer sensuality, to sub-

seems manifestly to be the period most favourable to happiness. The *body* has more strength and vigour; the *mind* more spirit and activity; the soul more fire and energy, more elevation and generosity: life presents more smiling prospects and fairer hopes. Learn, beloved youth, to appreciate and to employ all your advantages: the aim of my work is to furnish you with the means of doing so.

ject the passions to reason, to curb the imagination, to follow for our instruction that order and method which are the soul of study, to employ all the moments of life with economy and discernment, according to fixed and invariable laws ; to husband our strength and our powers, and thus to prolong our existence ; in short, to watch, to correct, to meliorate ourselves incessantly—this is the end and aim of our method. Such are the characters that must constitute a superior man, when the first seeds of the great qualities attached to our nature and organisation are expanded by education and habit. The soul of such a superior person will be the focus of the noblest passions. His head will be cool and calm, and his character phlegmatic ; for it is the phlegmatic who possess the command over others. Always masters of themselves, they easily acquire the mastery over other men. Patient and observant, they wait for opportunities, or silently create them, and make them subservient to their views. Genius, says Buffon, is but a greater aptitude to patience.

The results of our method, practised perseveringly, and in all its points, are *health, peace of mind, and knowledge*, advantages, to obtain which it is doubtless worth while strictly to pursue the prescribed course.

All men run after happiness : we have pointed out the easiest and surest road for reaching that goal, which so few know how to attain. We have furnished the youth desirous of fortifying and improving himself, of acquiring knowledge, and leading an agreeable and honourable life, with general principles, of conduct for preserving both health of body and dignity of soul, for cultivating his understanding and adorning his mind. We have presented him with the practical application of these principles, a simple method for regulating the employment of his time, a faithful guide, a sort of portable apparatus, which he may set in motion when he will, and keep going as long as he pleases. He will know nothing either of vacuity of soul, or of that too common disease—spleen, which a person who thinks cannot feel without blushing. His whole life, ever usefully employed, instead of affording occasion for repentance, disgust, or regret, will be like a fertile and productive field, which yields its owner abundant crops. In short, we have furnished a method for improving the understanding, and forming happy men, and useful citizens and subjects.

All the results of this method cannot be correctly calculated, without taking the widest and most general view of the question of the employ-

ment of time. Time belongs alike to all men, and the employment of the time of each individual, according as it is well or ill regulated, tends to the advantage or detriment of the whole community. This important truth ought, above all, to be deeply impressed on the mind : it is the contemplative inaction of a small number of persons that is the germ of the activity of the multitude. As it is the thinking class that sets in motion the active class, that habit of contemplation and meditation which we render simple, easy, and necessary by our method, will double the activity of those who chuse to practise it. It has been justly observed that *order enlarges space*.* The spirit of order which we apply to all the portions of life enlarges for man both the sphere of thought and that of time, since time is a necessary element, which enters into the combination of all human actions and things. The habit of employing the different parts of this

* If good management and great regularity in the appropriation and employment of money really increase the wealth of individuals and states, the same must be the case with time and life. We augment them, we impart to them a virtue of reproduction and fecundity, we multiply their results, if we know how to allot and direct their various applications with regularity and method.

important element with order and economy really increases the quantity of it allotted to each individual. We add at once to the quantity and to the quality of actions. They are more numerous in a given space, and they are of a better nature, or better adapted to the grand end, our individual happiness, and the general prosperity.

NOTES
ON THE
ART OF EMPLOYING TIME

NOTE I.

Description of the Method of forming a **COMMON-PLACE BOOK** on the Plan recommended and practised by **JOHN LOCKE**, the celebrated Author of the *Essay on the Human Understanding*.

A Common-Place Book is a register of such things worthy of being noted as occur to a person in the course of meditation or study, arranged in such a manner, that among a number of subjects any one to which he has occasion to refer may be easily found. The advantages of keeping a common-place book are numerous and important: it not only makes a man read with accuracy and attention, but leads him insensibly to think for himself, provided he considers it not so much as a register of sentiments that strike him in the course of his reading, as a register of his own thoughts on various subjects. Many valuable thoughts occur even to men of no extraordinary genius; and these, without the assistance of a common-place book, are generally lost both to themselves and others.

There are various methods of arranging common-place books, but that invented by Locke, and recommended by him from the experience of its utility during a period of thirty-five years, is not excelled by any that have since been contrived.

The first page of the book devoted to this purpose is to serve as a kind of index to the whole, and to contain references to every place or matter comprised in it: in the commodious contrivance of which index, so that it may admit a sufficient quantity or variety of materials without confusion, the principal merit of the method consists.

The first page then, or, for the sake of obtaining more room, the first two pages, that front each other, are to be divided by parallel lines into twenty-five equal parts; every fifth line of which is to be distinguished by its colour or other circumstance. These lines are to be crossed perpendicularly by others, drawn from top to bottom, and in the several spaces of which the several letters of the alphabet both capital and small are to be duly written. The form of the lines and divisions, both horizontal and perpendicular, will be easily conceived from the following specimen, in which what is to be done in the book for all the letters of the alphabet is here shown in the first two, A and B.

A	a
	e
	i
	o
	u
B	a
	e 2. 3.
	i
	o
	u

The index being thus formed, the book is ready for taking down any thing that may be desired. In order to this, consider to what head the thing you would enter is most naturally referred, and under which you would be led to look for such a thing. In this head, or word, regard is had to the initial letter, and the first vowel that follows it; which are the characteristic letters whereon all the use of the index depends.

Suppose, for instance, I would enter down a passage that refers to the head *Beauty*. *B* is the initial letter, and *e* the first vowel. I look in the index for the partition *B*, and in that partition for the line *e* (which is the place for all words beginning with *B*, and whose first vowel is *e*), and finding no numbers already down to direct me

to any page of the book where words of this characteristic have been entered, I turn forward to the first blank page, which, in a fresh book, as this is supposed to be, will be page 2, (that is, if one page only is occupied with the index) and there write what I have occasion for on the head *Beauty*; beginning the head in the margin, and indenting all the other subservient lines, that the head may stand out and show itself. This done, I enter the page where it is written, namely 2, in the index, in the space *Be*, from which time the class *Be* has the exclusive possession of the 2d and 3d pages, which are consigned to words of this characteristic.

Had I found any page or number already entered in the space *Be*, I must have turned to that page, and have written my matter in what room was left on it. Thus too, if, after entering the passage on *Beauty*, I should have occasion for *Benevolence*, or the like, finding page 2 already possessed of the space of this characteristic, I begin the passage on *Benevolence* in the remainder of the page, and if that will not contain the whole, I carry it on to page 3, which is also for *Be*, and add the figure 3 in the index.

Or, as it may happen in a book which has been some time in use, when the page allotted

to a certain class of words is full, and the following page is occupied also, it will then be necessary to go to the first blank page, the number of which must be marked at the foot of that of which it is a continuation.

To quotations from books, Mr. Locke recommends the addition not only of the page on which the passage transcribed stands, but also the number of pages contained in the volume, thus, $\frac{425}{688}$, the upper number indicating the page containing the passage quoted, and the lower the total number of pages in the volume. By this method, not only the edition of the book is known, but the reader may, by the rule of three, find the passage in any other edition, by looking at the number of the pages.

NOTE II.

Account of a Particular Method (invented and practised by the Author) for reading, studying, and analysing scientific and historical Works, with a View to the saving of Time in reading and study.

It would be, in my opinion, of great advantage for the instruction of youth, to prepare for their use analytical tables of the various branches of human knowledge, arranged according to the

principal characters which seem calculated to distinguish them with most precision. This general analysis of the sciences ought to present in detail for each of them :—

1. *The general divisions and the particular subdivisions of which each science is composed*, so as to afford a clear, accurate, and complete notion of the principal objects which it embraces, and of its aim ;

2. The infinitely complicated *relations* which subsist between the sciences, and connect them, more or less, immediately with one another ;

3. A catalogue, compiled with judgment, of the best works written on each branch of the sciences, accompanied by an analysis of their contents, and critical remarks, from which an opinion may be formed of the species of merit and utility possessed by each.

Every person of studious habits may make trial of this or a similar method with regard to the science which constitutes his favourite pursuit.

Till I can myself carry this plan into execution in a large work, for which I have collected a great quantity of materials, I shall here introduce an account of a particular method for reading and analysing works written on the different departments of the sciences or on history. This

method, which is not merely theoretical, but the advantages of which are demonstrated by long practical experience, is essentially connected with the subject of the preceding Essay, since it is designed to save time in reading and study.

It is adviseable to study the sciences and history in particular with specific views. It will be found of great advantage to determine beforehand the points with an especial reference to which we propose to read scientific and historical works, and to make extracts from or analyses of them. I shall therefore mark out here, in a general manner, the course which may be pursued, and which is susceptible of numberless modifications, and various kinds of improvements; for it should not be the same for those who have different aims. He who travels and reads as a naturalist will not make the same collections and researches as another who travels as a painter or a lover of the fine arts, or as a lawyer, and with the intention of acquainting himself with the jurisprudence, manners, and customs of the country which he visits, or whose annals he is consulting.

SCIENTIFIC WORKS.

A young man who studies, and wishes to make

himself master of any science whatever, may class the extracts or analyses of the works he reads in the following manner, so as to collect in distinct and separate but co-ordinate cells all that relates to the general divisions about to be enumerated. He may open a particular account for each of them, and afterwards adopt subdivisions ~~suited~~ suited to the particular object of ~~his~~ studies and his destination in society.

1. *Definition of the Science, or concise Explanation of its Object.*

It is proper, in the first place, to define the science and to state its object, and in the next, to sketch the luminous and productive facts which serve it for a *basis* and *points of support*; to indicate the *causes* of the phænomena which it considers, the services which it has rendered, and those which it may still render, the principal *means* which it employs, the results which it proposes to obtain; and thus to make the definition of it more accurate and complete.

2. *History of the Science.*

Having settled the definition of the science, it is necessary to proceed to its origin, and to give a concise history of it; to trace the course it has

followed, and the progress it has made, according to a more or less rapid *gradation*; to notice the persons who have advanced it, the point which it has attained, and the degrees of improvement of which it is susceptible.

3. *Geography and Topography of the Sciences, and of each Science in particular, considered within its peculiar Limits.*

A third *account* will be appropriated to the determination of the principal divisions, subdivisions, and ramifications of a science, and their mutual relations. It will exhibit, if I may so express myself, a geographical and topographical map of the science, shewing the provinces, counties, and districts, composing its territory; and the high-roads, cross-roads, and canals, formed, or to be formed, in order to facilitate their mutual intercourse, and their reciprocal exchanges.

4. *Legislation of the Sciences in general, and of each Science in particular.*

The fourth operation may consist in recapitulating the principles, the general axioms, or the fundamental and practical truths and laws, deduced from the very nature of the science under review, and forming, in some measure, its code or *legislation*.

5. *External, and, as it were, Commercial Relations of one Science with the others.*

It will be useful to study separately, and to investigate with care, the more or less immediate *relations* of the particular science under consideration with the other sciences and the different social professions ; to observe their mutual *action* and *re-action* ; and lastly, to indicate the methods and resources presented by it to the arts, which are thus made its tributaries.

6. *Logic of the Sciences, or Art of directing them ; Tactics of the Sciences, or Method to be pursued for promoting their Advancement ; and Conquests to be made by those who cultivate them in the different Regions of the Intellectual World.*

After these general considerations on the science which we are studying, we must endeavour to collect the *positive applications* of its processes ; to indicate, on one hand, the principal discoveries that are due to it, or fall within its sphere, their origin, connection, and progress ; to point out, on the other, the abuses to be avoided, the obstacles to be overcome, the principal questions to be discussed, and the *problems* to be resolved ; to bring together and to class methodically the

doubtful facts to be elucidated, the phænomena to be verified and to be traced to their causes and effects; and to direct to these questions, interesting to humanity, which are frequently scattered through a great number of books, the attention, meditation, researches, and experiments of such persons of active and observant minds as cultivate the sciences.

7. *Bibliography of the Sciences, and Methodical Collection of the Productions of the Human Mind, relative to each of the Branches of Knowledge.*

In the *seventh* place, those who would follow our method should form for their use, as they proceed in their studies, a bibliographical and chronological account of the most esteemed elementary works that have been published on the science to which they apply themselves, and of those which have extended its limits. They will take care to note down, in a series of observations adapted to this account, their particular opinion of such of these works as they may have read and studied, or the opinions of enlightened men whom they may have had occasion to consult.

8. *Biography of Men of Science and Philosophers who have contributed to the Advancement of the Arts and Sciences.*

The *eighth account* will contain a concise notice of the life, character, peculiar merits, and works of all those, whether theoretical or practical men, who have advanced the science, or distinguished themselves in it. This catalogue will be made up by centuries, and a separate article in it will contain a list of persons still living who cultivate the science in question.

9. *Analytical Table to facilitate References to the particular Accounts above-mentioned, which may be made up into one Book or Journal.*

At the end of each of the parts containing these different accounts, opened for the different views intended to be taken of the science, it will be advisable to form an **analytical index**, on Locke's plan, which has been described in the preceding note.

The habit of thus forming extracts or methodical analyses of the works written on a science, upon a plan uniform and fixed, but comprehensive and suitable for receiving all those modifications of detail, of which every science and ever branch

of study may be susceptible, seems calculated to communicate to the mind of a young man a manner of viewing things at the same time more comprehensive and more precise. It disposes him to dwell upon the bearings to which he designs to direct his attention, and to embrace a great number of these bearings from a single point of view, in order to their thorough investigation.

If such a direction were given to many minds, we should have in a few years numbers of geographical and statistical charts, infinitely more accurate than any we now possess, of the different regions of the intellectual world, and not only of the parts already known and cultivated, but also of those that have hitherto remained unwrought and unproductive, nay even of such as are still unknown.

HISTORICAL WORKS.

Historical works, as well as those written on the sciences, afford rich mines of materials of all kinds to those who understand the art of working them. The manner of studying history from all the points of view that it embraces would furnish the subject of a comprehensive work, which I may some day submit to the

public.* At present, I shall merely propose a few subjects of inquiry, to which every one will be at liberty to add such as he deems more expedient. I shall show how a person, after classing the different subjects which he wishes to consider in all historical works, may prevent any of the facts, or any of the passages relative to them, from escaping him, and arrange his books of extracts

* Some years since the author of this volume planned an *Historical Encyclopædia*, or *Universal History*, formed of comparative sketches of the different ages and nations considered under the points of view most interesting to mankind. He had instituted a *Society of Emulation for the Study of History*, consisting of nearly thirty young men, many of whom were already advantageously known by means of useful productions, and who were to collect and arrange the materials for the proposed great work.

The co-operators in this literary undertaking, which was interrupted at its outset by circumstances, were subdivided into as many committees or classes as there were in their judgment important branches of inquiry to pursue. These composed the principal divisions, to which belonged several particular subdivisions, which they were at liberty to extend and multiply as they thought proper.

These committees had separate books for the different departments, in which were to be placed, as in a cell or drawer, the facts and observations connected with each. These copious materials were then to be digested into one homogeneous work, which would have furnished in a few volumes the essence of almost all the productions of the human mind, since man began to preserve and to transmit them from generation to generation.



in such a manner that each of them, in a few years, shall furnish the substance of a great number of volumes, and an analytical and methodical assemblage of all the analogous facts, or facts bearing upon one and the same point, contained in those volumes. He will have a copious collection of practical truths regularly arranged and mutually supporting one another; and he will acquire solid, diversified, and complete information on each of the matters which he may have selected for the subjects of his inquiries and observations.

Most of those who read historical works read without order, connection, or method. They take up at random ancient or modern authors, distant or recent periods, and fill their minds with vague and confused notions. They find little interest in what they read, which is necessarily ill digested, and but a series of digressions. A complete course of historical reading, well arranged and perseveringly prosecuted, would require neither more time nor more attention, but afford more information and more pleasure, and be attended with important advantages. It would be useful to determine beforehand the works to be read, and the order in which they are to be successively taken up. This order should be

governed by chronology, that the reader might follow from age to age the progression and the variations of the human race, and the different vicissitudes which each nation has in turn experienced. It would then be proper for the reader to fix, as we have recommended, upon some particular point of view, in which to consider the course of ages and nations : this would produce a kind of unity of action, interest, and end, which we expect in a tragedy, in an epic poem, and generally in works of every class, which have no merit in our eyes, unless the details, ably combined and blended together, concur in forming a beautiful whole.

This particular field, which the reader proposes to explore, ought to be so chosen with reference to the nature of his understanding, taste, and destination, that he may find in it both pleasure and profit. A *soldier* will pay especial attention to the military art, to its first rude essays, to its more or less complicated procedures, and to the modifications which it has undergone. A *lawyer* will observe the different systems of legislation which have succeeded one another in the different ages of the world, in the different countries of the globe, and in various periods of civilisation. A *statesman* will seek and compare together the

treaties, the conventions, and the transactions of every kind that have taken place between states, as well as the changes which the law of nations and general politics may have experienced, according to the epochs and constitutions of communities. A *physician* will study in history the different branches of the medical art, with a two-fold view to things and persons; or to discoveries, systems, and the doctrines successively taught in the schools, and to the men who have distinguished themselves in that profession. A *moral philosopher* will investigate the manners, habits, and customs, and the causes which have produced, influenced, or varied the different shades or hues, by which they are characterised. But it is not necessary to confine ourselves to one particular point of view; we may take a greater range if we find it desirable or expedient. As each individual may thus select one or more particular subjects for consideration in history, he will give more precision and steadiness to his mind, which will always have a principal, especial, and determinate aim in its inquiries and observations, and a powerful motive to excite and keep it in activity. From this salutary habit the understanding will not only acquire precision and accuracy, and a greater degree of energy and

sagacity, but also capacity and a comprehensive manner of viewing things; for on all occasions it will ascend from effects to causes, to the moving springs or agents, and descend again from these productive causes to their effects or results. At the same time that we are giving precision, rectitude, comprehensiveness, and vigour, to the understanding, and inuring it to habits of observation and meditation, we shall gain the triple advantage of cultivating and adorning the memory, of exciting and embellishing the imagination, and of forming the style: for it will be our business to commit to writing, in tables, for which we shall presently furnish a model, an analytical summary of the facts which we may have remarked, and which belong to the particular subject of our inquiry.

Subjoined are some of the principal points which it seems useful to consider in history, in voyages and travels, and in philosophical, moral, and political works, together with a statement of the method, which will be sufficient to enable every one to adopt a great number of others, according to his inclination, occasions, and capacity; for it must not be forgotten that the direction to be given to the study of history ought to be infinitely varied, according to the particular

situations of individuals, the objects they have in view, and the kind of information they wish to derive from it; and that it is of the highest importance to attend continually to results.

1. EDUCATION; or, *the Art of forming Men.*

Those who would study history, and the lives of illustrious men, with a particular reference to this subject, ought to collect and class by centuries and nations, the laws, customs, methods, observations, and facts relative to *education*, public or private, in the different ages and countries of the world.

2. POLITICS; or, (*according to Aristotle's admirable Definition*) *the Art of rendering Men happy.*

If we search history for the means of thoroughly studying *politics*, we should collect and arrange in the mode and order already mentioned the facts, observations, laws, customs, and manners, which seem to have concurred in the aim that politics ought to keep in view, and which may furnish elements and results of prosperity. It is necessary to convey a clear and accurate idea of the different modes of administration, of the nature and conduct of different governments compared with one another, and of the salutary or baneful influence which they have exercised.

3. SOCIAL ADVANCEMENT; or, *Social Progressions.*

A third important consideration, which is connected with politics, and which likewise embraces the arts and sciences, and the whole of the social economy, will have for its object to examine and exhibit, century by century, the general state of the arts and sciences, the *progressive, stationary, or retrograde* course of society in the different parts of the globe, and the principal, general or particular, causes which appear to have produced these variations. We should more especially strive to make ourselves intimately acquainted with the connection between these causes and their effects, and to display it to demonstration; then to form for our instruction an accurate thermometer or scale of the different degrees of the political, moral, and intellectual temperature, of the prosperity, stagnation, or advancement, of every age and every nation of the world.

4. OBSTACLES TO PUBLIC PROSPERITY.

As the division of labour among many individuals, who share the different professions among them, allows each more completely to explore and to improve the field to which he has devoted his especial attention; so the judicious distribu-

tion of the different considerations which history may furnish among those who wish to study it with profit, or the successive examination by one person of these considerations taken separately, enables a good understanding to penetrate deeper into the particular object of its inquiries, and to discover in it things which it must have overlooked, had it attempted to embrace too many subjects of observation at once, instead of directing and confining, at least for a time, all its energies to a single point.

It will not therefore be amiss, after selecting from history, and bringing together the different facts relative to *education, politics, and social advancement*, to seek out and separately investigate the *obstacles to prosperity*.

With this view we should strive by patient and close observation to discover the causes which have retarded public prosperity and civilisation among different nations and in different ages. These causes we should then class in epochs, and state with precision and fidelity the principal facts relative to this branch of inquiry, and the proofs of the pernicious effects which have evidently resulted from the causes specified.

5. GREAT MEN COMPARED TOGETHER.

The influence of men of genius, who, by a noble employment of their faculties, devoted to the happiness of their species, elevate themselves to the rank of great men, is one of the most powerful causes of public prosperity. It would therefore be both interesting and instructive to form a chronological gallery, with characteristic notices of the illustrious persons who succeed one another in the varied pictures of history, by centuries, nations, and classes, according to the different walks in which they distinguished themselves. We should endeavour to delineate their portraits with impartial fidelity, to state their claims to fame or to the esteem of posterity, the points of resemblance that may exist between them, the nature and degree of the influence which they possessed over their age, their art, or the profession which they embraced, and over their country.

6. INFLUENCE OF WOMEN *considered among all Nations and in all Ages.*

The private or public, and moral and political influence of women, considered among the different nations, and in all ages of the world,

seems to be a subject worthy of curiosity, attention, and meditation. That influence of the weaker over the stronger sex, which restores the equilibrium between them, is a law of nature, of which society, legislators, and governments, ought to avail themselves for the benefit of mankind. It is expedient to study and indicate the direction, salutary or pernicious, which religion, education, legislation, social institutions, and manners, have given, and may give to the influence of women, by employing with more or less skill, or in a wrong way, this all-powerful engine, formed by nature to act upon the heart and mind of man, and of course upon the whole species, as well as upon individuals.

It is at once a fascinating and a serious subject, which charms the imagination, delights the reason, enlightens the understanding, and soothes the heart; which associates itself with all the soft, tender, generous affections, with all the noble sentiments, with all profound thoughts. It is a consideration rich and fertile in reflections and consequences, which observers of both sexes may study with equal interest; but which women in particular may pursue with profit. They will learn from numberless facts, which appear in every shape and in all ages, what is the real

power of their sex, which is ever active, though frequently invisible and unperceived; and how that power, well or ill directed and employed, becomes either a useful lever to raise man to the loftiest conceptions, to the boldest enterprises, to the most difficult and the most laudable actions, or a real bane to mankind, who are sometimes plunged by this cause, when degenerated and corrupted, into the most tremendous abysses of depravity and misery.

The most interesting half of the human species is thus transformed, as it were, into a single individual, who may be followed and observed through all the periods of history, and whose influence, variously modified by education, legislation, manners, and the general spirit of communities, may be profoundly studied. We collect, in the order of dates and countries, a multitude of curious facts, public and private, interesting anecdotes, instructive observations, events, portraits, and characters, scattered throughout the annals of nations, which may be combined into a panorama, or arranged as a spacious gallery. History, without losing any of its dignity and utility, assumes the colour and interest of fiction, abounding in episodes, and in strange and tragic adventures, ever varying, and nevertheless referrible to one and the same general consideration.

7. RELIGIONS AND INSTITUTIONS.

We may lastly study with profit the various characters of the doctrines or creeds, and of the religious institutions of all ages and all nations; their influence, alternately beneficial and baneful, the agents which they set in motion, the means which they have employed, and the effects which they have produced according to their different modifications.

APPLICATION OF THE PROPOSED METHOD.

A person who designs to practise the proposed method, and to direct his attention either to the subjects above specified or to others, should open for this purpose a number of separate books for analytical extracts, equal to that of the subjects upon which he may fix. He will have a kind of clue and compass to guide him through the vast and tortuous labyrinth of the annals of all ages and of all nations. He will pause every twenty pages (more or less, according to the strength of his understanding and memory, and the nature of the work) to recapitulate in his mind what he has read and observed; he will consider it in the different points of view which he has pre-determined, and put a small strip of paper, marked

with the letter of reference of one of the subjects already specified, at the page containing a fact or observation analogous to any of the objects of his inquiry. He will lay down the book after reading sixty or eighty pages, at three different intervals, and will not begin reading again till he has written down, in a few lines only, the condensed substance of what appears to him to belong to one of the general subjects for which he studies history.

This manner of reading, studying, analysing, and extracting, cannot but contribute, as we have remarked, to form at once the judgment, taste, style, and memory; to develop the understanding, by giving to it more comprehensiveness and precision; and lastly to produce a beneficial habit of observing with care, comparing with impartiality, discerning with sagacity, and judging soundly.*

* A young lady, equally interesting for her talents, the fruit of an attentive education, and for her excellent natural qualities and graces, has put in practice, for the study of history, a method similar to that here proposed. She has reduced into tables the great historical results, descending from certain general ideas to the details of the most important events. These events are appropriated either to a principal epoch which embraces them all, or to a particular dynasty. In each division, which

The journals or books may be arranged in the following manner:—

1. At the head of each the principal title, or the *subject of the extracts and analysis*, with a letter of reference.

Letters of Reference.	Subjects of the Analyses.
A	Education.
B	Politics and Government.
C	Women (influence of)
D	Social Advancement, Arts & Sciences, Progress of Civilisation.
E	Obstacles to Public Prosperity.
F	Great Men compared.
G	Religions and Institutions.

comprises a certain period of time, are inserted all the remarkable facts that belong to it. Thus you may compare the products of this or that epoch, of this nation or that dynasty, as we compare in arithmetic the products of several series of figures placed in parallel and corresponding columns. History, which is a science of facts, when so treated, furnishes positive results, which this method elicits, and which, collected and combined, furnish useful subjects of observation, and enable us to ascend more easily to the causes which produced them.

Another young lady, who is likewise indebted to nature for the twofold advantage of a happy physical and moral organisation, developed by a good education, under the superintendence of an excellent mother, has commenced with success an analysis of general history, ancient and modern, with a particular view to the *influence of women*, pursuing exactly the course marked out

2. Under the title, at the head of each page, should be mentioned the work from which the notes are extracted.

3. Close to the margin on the left there should be a *first column* for the insertion of the *running numbers*, and likewise of the *dates* or *epochs* (by centuries for ancient times, and by ten years or even by single years for modern times), to which the passages to be extracted or analysed relate.

4. In the *second column*, advancing to the right, are to be entered the *numbers of the pages and of the chapters of the work* from which the extracts are taken.

5. A *third column*, rather wider than the preceding, contains the *words of reference* peculiar to each article, or the name of the nation by whose history it is furnished, or that of the science to which it belongs.

6. The *fourth column*, which is considerably the widest, contains the substance of the *facts and observations* which the reader thinks fit to select.

7. A *fifth column* on the right is left blank for such private notes and reflections as the writer

above. In this manner of treating history, she finds the advantages which we have ventured to promise—solid, agreeable, and diversified information, pleasure, and utility.

may please to add, and for references to the articles that correspond.

8. At the end of each book or journal he will form an analytical index of its contents, on Locke's plan, already described.

Besides the journals above-mentioned, it will be advisable to have two other separate books, which will be found particularly useful by those who cultivate the sciences. The one may be intitled: *Experiments made and to be consulted, or luminous and productive Facts*; and the other: *Experiments to be made, or Series of Questions and Problems to be resolved*.

These two books, the one devoted to the *past*, the other to the *future*, which are designed mutually to assist each other, and to concur in the same end, must have a wide margin; each article must be numbered, and in the margin must be written the word of reference to denote the principal subject, or the science, to which the fact cited or the question proposed relates.*

* A methodical collection, formed in this manner, for every science, and containing separately, in the first place, all the interesting *facts* belonging to it that are to be found scattered through a multitude of works; and in the next, all the problems useful to mankind, the solution of which seems to be reserved for it, would be, in my opinion, an excellent medium for accelerating the progress of the sciences, and for furnishing youth, the investigators of nature, and men of genius, capable of

Every reader may thus form for his own use an abridged, yet complete, general history, either of any particular science, nation, or epoch, or of any branch relative to his personal instruction, and comprise in a series of analytical tables all the principal points that he deems it necessary to study and investigate. Instead of letting slip all the profit of his reading, of which most people retain no more than a vague and useless recollection, he will ensure the means of having what he has read and observed always present to his mind, of better digesting what he reads by meditation, and of rendering it really instructive, by arranging with order and method all that deserves to be impressed upon the memory, that he may be able to refer to and make use of it when he has occasion. The advantages afforded by such a system, practised for ten years only, would be immense and incalculable.

making discoveries, with a greater quantity of materials in each, and those better arranged and more productive from their concentration. The same portion of life would thus supply an infinitely greater number of *facts, subjects for observation, inquiry, and experiment*; and we might naturally expect also to obtain in the same space of time a greater mass of results.

NOTE III.

PLAN OF DR. BENJAMIN FRANKLIN FOR ATTAINING
MORAL PERFECTION, AND REGULATING THE
EMPLOYMENT OF TIME.

ABOUT this time I conceived the bold and arduous project of arriving at *moral perfection*. I wished to live without committing any fault at any time, and to conquer all that either natural inclination, custom, or company, might lead me into. As I knew, or thought I knew, what was right or wrong, I did not see why I might not *always* do the one and avoid the other. But I soon found that I had undertaken a task of more difficulty than I had imagined. While my attention was taken up, and care employed in guarding against one fault, I was often surprised by another; habit took the advantage of inattention; inclination was sometimes too strong for reason. I concluded at length that the mere speculative conviction, that it was our interest to be completely virtuous, was not sufficient to prevent our slipping; and that the contrary habits must be broken, and good ones acquired and established, before we can have any dependence on a steady uniform rectitude of conduct: for this purpose I therefore tried the following method.

In the various enumerations of the *moral virtues* I had met with in my reading, I found the catalogue more or less numerous, as different writers included more or fewer ideas under the same name. *Temperance*, for example, was by some confined to eating or drinking, while, by others, it was extended to mean the moderating every other pleasure, appetite, inclination, or passion, bodily or mental, even to our avarice or ambition. I proposed to myself, for the sake of clearness, to use rather more names, with fewer ideas annexed to each, than a few names with more ideas; and I included, under thirteen names of virtues, all that at that time occurred to me as necessary or desirable; and annexed to each a short precept, which fully expressed the extent I gave to its meaning.

These names of *virtues*, with their precepts, were:—

1. **TEMPERANCE.**—Eat not to dullness: drink not to elevation.

2. **SILENCE.**—Speak not but what may benefit others or yourself: avoid trifling conversation.

3. **ORDER.**—Let all things have their places: let each part of your business have its time.

4. **RESOLUTION.**—Resolve to perform what you ought: perform without fail what you resolve.

5. **FRUGALITY.**—Make no expense but to do good to others or yourself ; i. e. waste nothing.

6. **INDUSTRY.**—Lose no time : be always employed in something useful : cut off all unnecessary actions.

7. **SINCERITY.**—Use no hurtful deceit : think innocently and justly ; and if you speak, speak accordingly.

8. **JUSTICE.**—Wrong none by doing injuries, or omitting the benefits that are our duty.

9. **MODERATION.**—Avoid extremes : forbear resenting injuries so much as you think they deserve.

10. **CLEANLINESS.**—Tolerate no uncleanness in body, clothes, or habitation.

11. **TRANQUILLITY.**—Be not disturbed at trifles, or at accidents common or unavoidable.

12. **CHASTITY.**—Rarely use venery, but for health or offspring ; never to dullness or weakness, or the injury of your own or another's peace or reputation.

13. **HUMILITY.**—Imitate *Jesus* and *Socrates*.

My intention being to acquire the *habitude* of all these virtues, I judged it would be well not to distract my attention by attempting the whole at once, but to fix it on *one* of them at a time ; and when I should be master of that, then to pro-

ceed to another; and so on till I should have gone through the thirteen. And as the previous acquisition of some might facilitate the acquisition of certain others, I arranged them with that view as they stand above; Temperance first, as it tends to procure that coolness and clearness of head which is so necessary where constant vigilance was to be kept up, and a guard maintained against the unremitting attraction of ancient habits and the force of perpetual temptations. This being acquired and established, *Silence* would be more easy; and my desire being to gain knowledge at the same time that I improved in virtue; and considering that in conversation it was obtained rather by the use of the ear than of the tongue, and therefore wishing to break a habit I was getting into of prattling, punning, and jesting (which only made me acceptable to trifling company), I gave *Silence* the second place. This and the next, *Order*, I expected would allow me more time for attending to my project and my studies. *Resolution*, once become habitual, would keep me firm in my endeavours to obtain all the subsequent virtues; *Frugality* and *Industry* relieving me from my remaining debt, and producing affluence and independence, would make more easy the prac-

tice of *Sincerity* and *Justice*, &c. &c. Conceiving then, that agreeably to the advice of Pythagoras in his *Golden Verses*, daily examination would be necessary, I contrived the following method for conducting that examination.

I made a little book, in which I allotted a page for each of the virtues. I ruled each page with red ink, so as to have seven columns, one for each day of the week, marking each column with a letter for the day. I crossed these columns with thirteen red lines, marking the beginning of each line with the first letter of one of the virtues ; on which line, and in its proper column, I might mark, by a little black spot, every fault I found upon examination to have been committed respecting that virtue, upon that day.

FORM OF THE PAGES.

TEMPERANCE.—Eat not to dullness; drink not to elevation.

	Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
Temperance							
Silence							
Order							
Resolution							
Frugality							
Industry							
Sincerity							
Justice							
Moderation							
Cleanliness							
Tranquillity							
Chastity							
Humility							

I determined to give a week's strict attention to each of the virtues successively. Thus, in the first week, my great guard was to avoid the least offence against *Temperance*; leaving the other virtues to their ordinary chance, only marking every evening the faults of the day. Thus, if in the first week I could keep my first line marked T. clear of spots, I supposed the habit of that virtue so much strengthened, and its opposite weakened, that I might venture extending my attention to include the next; and for the following week keep both lines clear of spots. Proceeding thus to the last, I could get through a course in thirteen weeks, and four courses in a year. And like him who, having a garden to weed, does not attempt to eradicate all the bad herbs at once, (which would exceed his reach and his strength) but works on one of the beds at a time, and having accomplished the first, proceeds to a second; so I should have (I hoped) the encouraging pleasure of seeing on my pages the progress made in virtue, by clearing successively my lines of their spots; till in the end, by a number of courses, I should be happy in viewing a clean book; after a thirteen weeks' daily examination.

This my little book had for its motto these lines from Addison's Cato :

" Here will I hold. If there's a power above us,
(And that there is, all Nature cries aloud
Through all her works) he must delight in virtue ;
And that which he delights in must be happy."

Another from Cicero,

" O vitæ Philosophia dux ! O virtutum indagatrix expultrixque vitiorum ! Unus dies bene, et ex præceptis tuis actus, peccanti immortalitati est anteponendus."

Another from the proverbs of Solomon, speaking of wisdom or virtue :

" Length of days is in her right hand, and in her left hand riches and honour. Her ways are ways of pleasantness, and all her paths are peace."

And conceiving God to be the fountain of wisdom, I thought it right and necessary to solicit his assistance for obtaining it ; to this end I formed the following little prayer, which was prefixed to my tables of examination, for daily use :

" O powerful goodness ! bountiful father ! merciful guide ! increase in me that wisdom

which discovers my truest interest. Strengthen my resolution to perform what that wisdom dictates. Accept my kind offices to thy other children, as the only return in my power for thy continual favours to me."

I used also sometimes a little prayer, which I took from Thomson's Poems, viz.

"Father of light and life, thou God supreme!
O teach me what is good; teach me thyself!
Save me from folly, vanity, and vice,
From every low pursuit; and fill my soul
With knowledge, conscious peace, and virtue pure;
Sacred, substantial, never-fading bliss!"

The precept of *Order* requiring that *every part of my business should have its allotted time*, one page in my little book contained the following scheme of employment for the twenty-four hours of a natural day.

SCHEME.

	Hours.	
MORNING.	{ 5 }	Rise, wash, and address <i>Powerful</i>
	{ 6 }	<i>Goodness!</i> contrive day's business, and take the resolution
The Question. What good shall I do this day?	{ 7 }	of the day; prosecute the present study, and breakfast.
	{ 8 }	
	{ 9 }	Work.
	{ 10 }	
	{ 11 }	
NOON.	{ 12 }	Read or look over my accounts,
	{ 1 }	and dine.

Hours.	
AFTERNOON.	{ 2 }
	{ 3 }
	{ 4 } Work.
	{ 5 }
EVENING. The Question. What good have I done to-day?	{ 6 } Put things in their places. Supper.
	{ 7 } Music or diversion, or con-
	{ 8 } versation. Examination of the
	{ 9 } day.
NIGHT.	{ 10 }
	{ 11 }
	{ 12 }
	{ 1 }
	{ 2 } Sleep.
	{ 3 }
	{ 4 }
	{ }

I entered upon the execution of this plan for self-examination, and continued it with occasional intermissions for some time. I was surprised to find myself so much fuller of faults than I had imagined; but I had the satisfaction of seeing them diminish. To avoid the trouble of renewing now and then my little book, which, by scraping out the marks on the paper of old faults to make room for new ones in a new course, became full of holes, I transformed my tables and precepts to the ivory leaves of a memorandum book, on which the lines were drawn with red ink, that made a durable stain; and on those lines I marked my faults with a black-lead pencil; which marks I could easily wipe out with a wet sponge. After a while I went through one course

only in a year; and afterwards only one in several years; till at length I omitted them entirely, being employed in voyages and business abroad, with a multiplicity of affairs that interfered; but I always carried my little book with me. My scheme of *Order* gave me the most trouble; and I found that though it might be practicable where a man's business was such as to leave him the disposition of his time, that of a journeyman printer, for instance, it was not possible to be exactly observed by a master, who must mix with the world, who often receive people of business at their own hours. *Order* too, with regard to places for things, papers, &c. I found extremely difficult to acquire. I had not been early accustomed to method, and having an exceeding good memory, I was not so sensible of the inconvenience attending want of method. This article, therefore, cost me so much painful attention, and my faults in it vexed me so much, and I made so little progress in amendment, and had such frequent relapses, that I was almost ready to give up the attempt, and content myself with a faulty character in that respect. Like the man who, in buying an axe of a smith, my neighbour, desired to have the whole of its surface as bright as the edge, the smith consented to grind

it for him if he would turn the wheel : he turned, while the smith pressed the broad face of the axe hard and heavily on the stone, which made the turning of it very fatiguing. The man came every now and then from the wheel to see how the work went on ; and at length would take the axe as it was, without further grinding. " No," said the smith, " turn on, turn on, we shall have it bright by and by ; as yet 'tis only speckled." " Yes," said the man, " but *I think I like a speckled axe best.*" And I believe this may have been the case with many, who having, for want of some such means as I employed, found the difficulty of obtaining good, and breaking bad habits in other points of vice and virtue, have given up the struggle, and concluded that "*a speckled axe is best.*" For something, that pretended to be reason, was every now and then suggesting to me, that such extreme nicety as I exacted of myself might be a kind of foppery in morals, which, if it were known, would make me ridiculous ; that a perfect character might be attended with the inconvenience of being envied and hated ; and that a benevolent man should allow a few faults in himself, to keep his friends in countenance. In truth, I found myself incorrigible with respect to *Order* ; and now I am

grown old, and my memory bad, I feel very sensibly the want of it. But on the whole, though I never arrived at the perfection I had been so ambitious of obtaining, but fell far short of it, yet I was, by the endeavour, a better and a happier man than I otherwise should have been if I had not attempted it; as those who aim at perfect writing by imitating the engraved copies, though they never reach the wished-for excellence of those copies, their hand is mended by the endeavour, and is tolerable, while it continues fair and legible.

It may be well my posterity should be informed, that to this little artifice, with the blessing of God, their ancestor owed the constant felicity of his life down to the seventy-ninth year, in which this is written. What reverses may attend the remainder is in the hand of Providence; but if they arrive, the reflection on past happiness enjoyed ought to help his bearing them with more resignation. To *Temperance* he ascribes his long-continued health, and what is still left him of a good constitution. To *Industry* and *Frugality*, the early easiness of his circumstances and acquisition of his fortune, with all that knowledge that enabled him to be a useful citizen, and obtained for him some degree of reputation among the

learned. To *Sincerity* and *Justice*, the confidence of his country, and the honourable employs it conferred upon him : and to the joint influence of the whole mass of the virtues, even in the imperfect state he was able to acquire them, all that evenness of temper and that cheerfulness in conversation which makes his company still sought for, and agreeable even to his young acquaintance. I hope, therefore, that some of my descendants may follow the example, and reap the benefit.

It will be remarked that though my scheme was not wholly without religion, there was in it no mark of any of the distinguishing tenets of any particular sect : I had purposely avoided them ; for, being fully persuaded of the utility and excellency of my method, and that it might be serviceable to people in all religions, and intending some time or other to publish it, I would not have any thing in it that should prejudice any one of any sect against it. I proposed writing a little comment on each virtue, in which I would have shewn the advantages of possessing it, and the mischiefs attending its opposite vice. I should have called my book *The Art of Virtue*, because it would have shewn the means and manner of obtaining virtue, which would have distinguished it from the mere exhortation to be good, that does not

instruct and indicate the means ; but is like the apostle's man of verbal charity, who, without shewing the naked and hungry how or where they might get clothes and victuals, only exhorted them to be fed and clothed.—(James ii, 15, 16.)

But it so happened that my intention of writing and publishing this comment was never fulfilled. I had indeed, from time to time, put down short hints of the sentiments, reasonings, &c. to be made use of in it, some of which I have still by me : but the necessary close attention to private business in the earlier part of my life, and public business since, have occasioned my postponing it ; for, it being connected in my mind with a great and extensive project, that required the whole man to execute, and which an unforeseen succession of employs prevented my attending to, it has hitherto remained unfinished.

In this piece it was my design to explain and enforce this doctrine, that vicious actions are not hurtful because they are forbidden, but forbidden because they are hurtful ; the nature of man alone considered : that it was therefore every one's interest to be virtuous, who wished to be happy even in this world : and I should from this circumstance (there being always in the world a number of rich merchants, nobility, states, and

princes, who have need of honest instruments for the management of their affairs, and such being rare) have endeavoured to convince young persons, that no qualities are so likely to make a poor man's fortune as those of probity and integrity.

My list of virtues contained at first but twelve, but a quaker friend having kindly informed me that I was generally thought proud; that my pride shewed itself frequently in conversation; that I was not content with being in the right when discussing any point, but was overbearing and rather insolent (of which he convinced me by mentioning several instances), I determined to endeavour to cure myself, if I could, of this vice or folly among the rest; and I added *Humility* to my list, giving an extensive meaning to the word. I cannot boast of much success in acquiring the *reality* of this virtue, but I had a good deal with regard to the appearance of it. I made it a rule to forbear all direct contradiction to the sentiments of others, and all positive assertion of my own. I even forbade myself, agreeably to the old laws of our *Junto* (a club formed by Franklin at Philadelphia), the use of every word or expression in the language that imported a fixed opinion; such as *certainly*, *undoubtedly*, &c. and I adopted instead of them, *I conceive*, *I*

apprehend, or *I imagine* a thing to be so and so ; or it so *appears to me at present*. When another asserted something that I thought an error, I denied myself the pleasure of contradicting him abruptly, and of shewing immediately some absurdity in his proposition ; and in answering I began by observing that, in certain cases or circumstances, his opinion would be right, but in the present case there *appeared* or *seemed to me* some difference, &c. I soon found the advantage of this change in my manners ; the conversations I engaged in went on more pleasantly. The modest way in which I proposed my opinions procured them a readier reception and less contradiction ; I had less mortification when I was found to be in the wrong, and I more easily prevailed with others to give up their mistakes, and join with me when I happened to be in the right. And this mode, which I at first put on with some violence to natural inclination, became at length easy and so habitual to me, that perhaps for the last fifty years no one has ever heard a dogmatical expression escape me. And to this habit (after my character of integrity) I think it principally owing that I had early so much weight with my fellow-citizens, when I proposed new institutions, or alterations in the old ; and so much influence

in public councils when I became a member : for I was but a bad speaker, never eloquent, subject to much hesitation in my choice of words, hardly correct in language, and yet I generally carried my point.

In reality there is perhaps no one of our natural passions so hard to subdue as *pride* : disguise it, struggle with it, stifle it, mortify it as much as one pleases, it is still alive, and will every now and then peep out and shew itself : you will see it perhaps often in this history ; for even if I could conceive that I had completely overcome it, I should probably be *proud* of my *humility*.*

The plan contrived and practised by Franklin, and here detailed in his own words, may be followed with equal advantage, but with some modifications, to keep an account of the employment of our time and our progress in the three grand departments which we have fixed :—

1. In the *bodily exercises* beneficial to health, which we may take up one by one for the purpose of improving ourselves in them.

2. In the *moral habits and qualities*, or virtues, which cannot be acquired and retained without

* *Memoirs of the Life and Writings of BENJAMIN FRANKLIN*, edited by his grandson, W. T. FRANKLIN, Vol. I. 127---143.

serving a kind of apprenticeship to each of them.

3. In all the branches of *knowledge*, the whole of which at once would overwhelm the mind, but with which we may easily render ourselves familiar, by studying them progressively, and one after another.

Here we find three important applications of three of our general laws: 1. The *Law of Gradation*; 2. The *Law of Division and Re-union*; 3. The *Law of Action and Re-action*, which have been developed in the *Introduction*.

NOTE IV.

ON THE PROGRESS AND EFFECTS OF CIVILISATION.

CIVILISATION is inherent in the nature of man, one of whose distinguishing characteristics is *sociality*. It is compounded, like all human things, of good and evil; but the advantages far outweigh the disadvantages. It is our duty to strive to meliorate it, to diminish the evils which it has produced, or which are attached to it, and to augment the benefits which it is capable of diffusing over the whole human race.

The division and employment of men are not only the two principal effects, but in their turn

the most important causes of civilisation and its advancement.

Our civilised societies consist of two great classes. One comprehends the *idlers*, or those who do nothing themselves, but live by the labour and toil of others—men debased and depraved by sloth and selfishness. “In politics, as in morals,” says Rousseau (in whose opinion, however, there seems to be some exaggeration), “it is a great evil not to do good; and every useless citizen may be considered as a pernicious man.” The other class is that of the *labourers*, or the active and industrious members of society. The latter is subdivided into two parts:—1. the persons whose labour and activity produce beneficial results:—2. those whose activity is barren and fruitless, nay often detrimental. These pernicious people are unfortunately too numerous. Even among those who are engaged in useful occupations, how many do we see not employed on that for which they are best qualified, whose industry is absolutely thrown away, or much less productive than it would be if better directed! How many others are obliged to spend their lives in occupations which I call *negative*, though imperatively commanded by the nature of things in society! Such are judges, priests, physicians,

soldiers, &c. who render important services, and whose functions are highly necessary, but whose number ought never to be disproportioned to the real wants of society; since they consume the produce of the labour of the other classes, without producing any thing immediately of themselves. This class should be confined within due limits, or rather care should be taken not to encourage exclusively the growth of this part of the social body, and not to give it a factitious corpulence injurious to the other members.

In our civilised societies we cannot reckon that more than one-twentieth of the persons composing them are engaged in really productive occupations. This twentieth has to feed or support by its labour the other nineteen-twentieths, composed of the useless idlers, the pernicious labourers, and the unproductive individuals.

Let us establish a new proportion beneficial to society; let us exert our skill to direct to a useful purpose that individual and general activity, which is too often ill managed and unprofitably applied; let us form an immense mass of well-combined efforts, and augment our powers a hundred-fold by employing them better.

Instead then of calumniating civilisation, let us seize all that is good and useful in it, all the

means and resources which it offers, and earnestly endeavour to improve it by a more judicious application of those three great moral and political powers—the *division of labour*, the *employment of time*, and the *employment of men*.

Rousseau himself, after portraying, with glowing eloquence, the mischiefs and abuses which have crept into the social system, and corrupted whatever was most noble and most beautiful in the institution of societies, bears a solemn testimony to the pre-eminence of the civilised man over the savage.

In spite of the enemies of civilisation, who, nevertheless, enjoy all its benefits, and who may justly be charged with ingratitude to that society which clothes, lodges, and feeds them, which lavishes on them all its comforts, conveniencies, and luxuries, we seem to be authorised to assert, that the moral ideas are developed and expanded, matured and improved, with the progress of knowledge.

Rude and barbarous nations, who have yet attained only a certain point of the social state, are addicted to acts of cruelty, unknown in civilised countries. The history of the different ages of the world, and of the inhabitants of the various regions of the globe, ancient and modern annals,

and the relations of voyagers and travellers, confirm this truth.

Let us consider for a moment the progress and effects of civilisation, by comparing the laws and customs, and the civil and political state of the Romans, with our present manners, customs, laws, and civilisation.

The Romans carried the rights of paternity to a pitch of barbarity. A father had a right to expose, sell, and even put to death his children. Our manners have not this character of atrocity: our jurisprudence, more consistent with sound reason, harmonises better with morality and nature; our civil existence is better protected and guaranteed. Now-a-days a son may, and ought to be the friend of his father. Education, more humane and better directed, especially for the last half century, has produced a much closer connection between parents and children.

The Romans had slaves, carried on an infamous traffic with them, and usurped the power of life and death over these wretches. They reduced their prisoners of war to servitude, chained captive kings to the triumphant cars of their haughty generals, and frequently made a sport of violating treaties. They marked their baneful power and destructive dominion by pillage, perfidy, and fero-

city. Our policy is milder, nobler, more generous; our law of nations more humane. In wars, even the most inveterate, we spare private property. Our disarmed foes are placed under the safeguard of the sacred laws of humanity; our prisoners of war are treated like our own soldiers, and return when hostilities are over to their native country. Slavery has been banished from civilised Europe.

The Romans delighted in the exhibitions of gladiators: murder was their amusement. We know nothing of these sanguinary sports.

Every foreigner was a *barbarian* in the eyes of the Romans; they applied this term to their enemies, the Carthaginians, who were more civilised than themselves. The European nations have renounced these national prejudices, the offspring of mistaken pride. The foreigner, of whatever nation, is welcomed among them, and every where enjoys the protection of the laws, the attentions of hospitality, and the advantages of civil society.

Any person, so inclined, might, by consulting the Roman history, carry this parallel much farther. He might also apply it to the Spartans, whose vaunted republic, no doubt worthy of admiration in many respects, nevertheless de-

serves the censure of having extinguished every spark of humanity in the bosoms of her citizens, of having authorised theft for the purpose of exercising the dexterity of youth, and of having sanctioned the atrocious policy of sending forth the inhabitants of Laconia to hunt their slaves, the Helots, as we go out to chase the deer, the hare, or any other species of game.

The study of the history and manners of different nations, and a comparison between the ages of ignorance and those of knowledge between savage and barbarous tribes, and enlightened and polished nations, are sufficient to enable us to decide the question, *whether the arts and sciences have contributed to refine the manners*; or, in other and more general terms, *whether civilisation is more beneficial than injurious*.

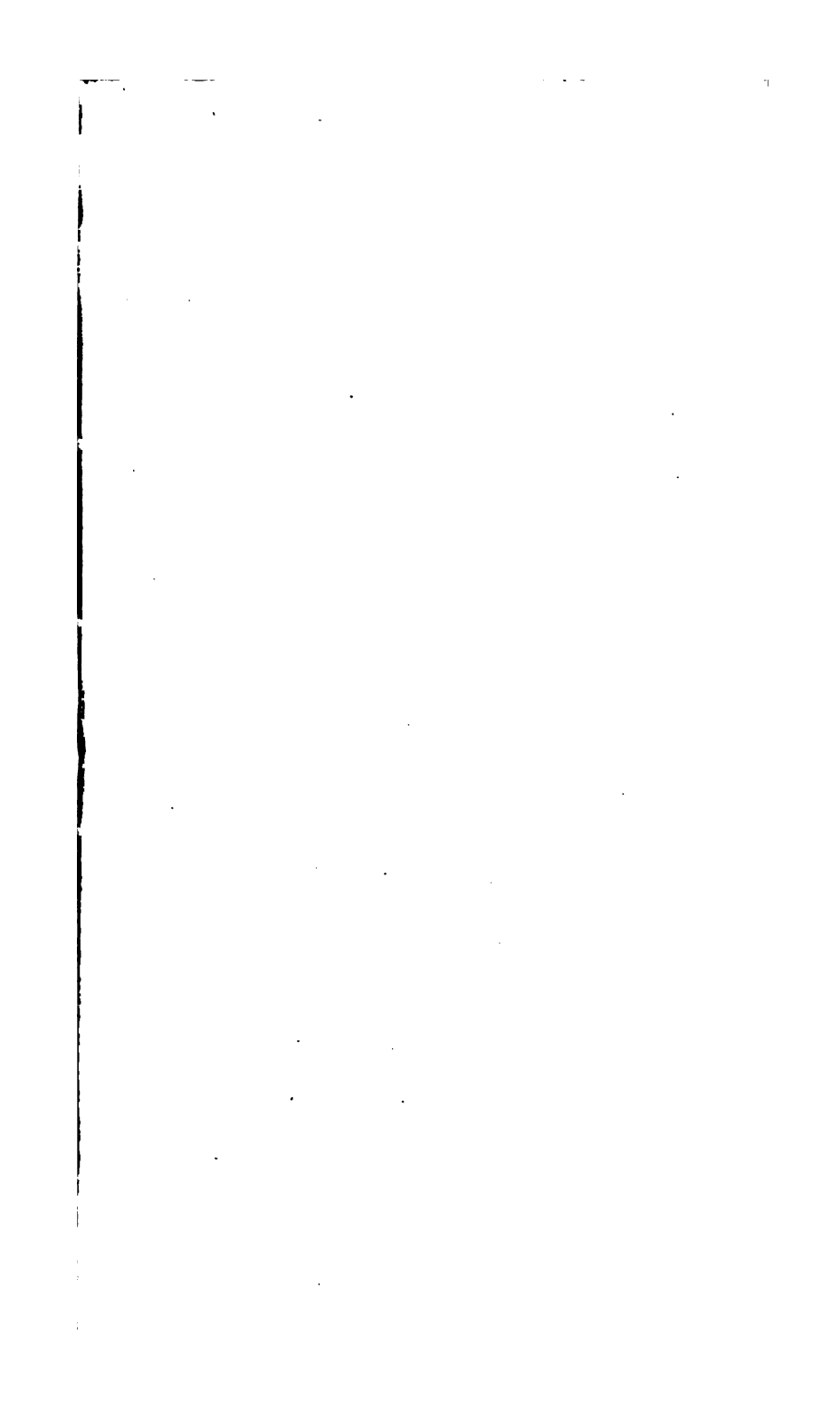
I reserve for my *Essay on the Philosophy of the Sciences* some conjectures respecting the future possible and probable progress of civilisation, and the advantages which must result from it for the great family of mankind, and especially for the few individuals who, appointed to preside over its destinies, have it in their power by their influence to communicate to it either a retrograde or a progressive motion.

These considerations, of such powerful interest, will not appear misplaced after an *Essay on the Employment of Time*, more especially designed for youth; for they ought when entering the career of life to impress upon their minds a deep sense of the destination which they have to fulfil. Their energies should be continually directed towards this noble and lofty aim:—*the melioration of the state of man upon earth, the extension of his power over nature, and the augmentation of his means of happiness*. Each in his sphere, however contracted, can contribute his share to this grand result. It is impossible then to throw too much light on all the questions relative to *social advancement*, which is the common aim of the general conduct of nations and governments, or the public administration, and of the private conduct of individuals.

THE END.

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